

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 3

AMENDED REPORT
(highlight changes)

APPLICATION FOR PERMIT TO DRILL

1A. TYPE OF WORK: DRILL <input checked="" type="checkbox"/> REENTER <input type="checkbox"/> DEEPEN <input type="checkbox"/>						5. MINERAL LEASE NO: ST UO 1194A	6. SURFACE: State
B. TYPE OF WELL: OIL <input type="checkbox"/> GAS <input checked="" type="checkbox"/> OTHER _____						7. IF INDIAN, ALLOTTEE OR TRIBE NAME: N/A	8. UNIT or CA AGREEMENT NAME: 891008900A
2. NAME OF OPERATOR: Kerr-McGee Oil & Gas Onshore, LP						9. WELL NAME and NUMBER: NBU 921-27D2AS	10. FIELD AND POOL, OR WILDCAT: Natural Buttes Field
3. ADDRESS OF OPERATOR: P.O. Box 173779 CITY Denver STATE CO ZIP 80217-3779						11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NENW 27 9S 21E	
4. LOCATION OF WELL (FOOTAGES) AT SURFACE: 640' FNL & 1747' FWL LAT 40.0126 LON -109.540422 (NAD 27) AT PROPOSED PRODUCING ZONE: NWNW 50' FNL & 350' FWL, Sec. 27, T9S, R21E <i>624581 X 4429957 Y 40.012522 -109.540311</i> <i>624152 X 4430130 Y 40.014138 -109.545306</i>						12. COUNTY: Uintah	13. STATE: UTAH
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE: 16.4 miles northeast of Ouray, Utah						17. NUMBER OF ACRES ASSIGNED TO THIS WELL: 10	
15. DISTANCE TO NEAREST PROPERTY OR LEASE LINE (FEET) 640'			16. NUMBER OF ACRES IN LEASE: 1292.39			17. NUMBER OF ACRES ASSIGNED TO THIS WELL: 10	
18. DISTANCE TO NEAREST WELL (DRILLING, COMPLETED, OR APPLIED FOR) ON THIS LEASE (FEET) 150'			19. PROPOSED DEPTH: 10,261			20. BOND DESCRIPTION: RLB0005237	
21. ELEVATIONS (SHOW WHETHER DF, RT, GR, ETC.): 4,953' GR			22. APPROXIMATE DATE WORK WILL START:			23. ESTIMATED DURATION: 10 days	

24.

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	CASING SIZE, GRADE, AND WEIGHT PER FOOT	SETTING DEPTH	CEMENT TYPE, QUANTITY, YIELD, AND SLURRY WEIGHT			
12 1/4"	9 5/8" J-55 36#	2,400	Premium Cement	215 sx	1.18	15.6
			Premium Cement	50 sx	1.18	15.6
7 7/8"	4 1/2" I-80 11.6#	9,900	Premium Lite II	420 sx	3.38	11.0
			50/50 Poz G	1420 sx	1.31	14.3

25.

ATTACHMENTS

VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES:

- | | |
|--|--|
| <input checked="" type="checkbox"/> WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER | <input checked="" type="checkbox"/> COMPLETE DRILLING PLAN |
| <input checked="" type="checkbox"/> EVIDENCE OF DIVISION OF WATER RIGHTS APPROVAL FOR USE OF WATER | <input type="checkbox"/> FORM 5, IF OPERATOR IS PERSON OR COMPANY OTHER THAN THE LEASE OWNER |

NAME (PLEASE PRINT) Kevin McIntyre

TITLE Regulatory Analyst I

SIGNATURE K. McIntyre

DATE 7/1/2008

Approved by the
Utah Division of
Oil, Gas and Mining

(This space for State use only)

RECEIVED

JUL 08 2008

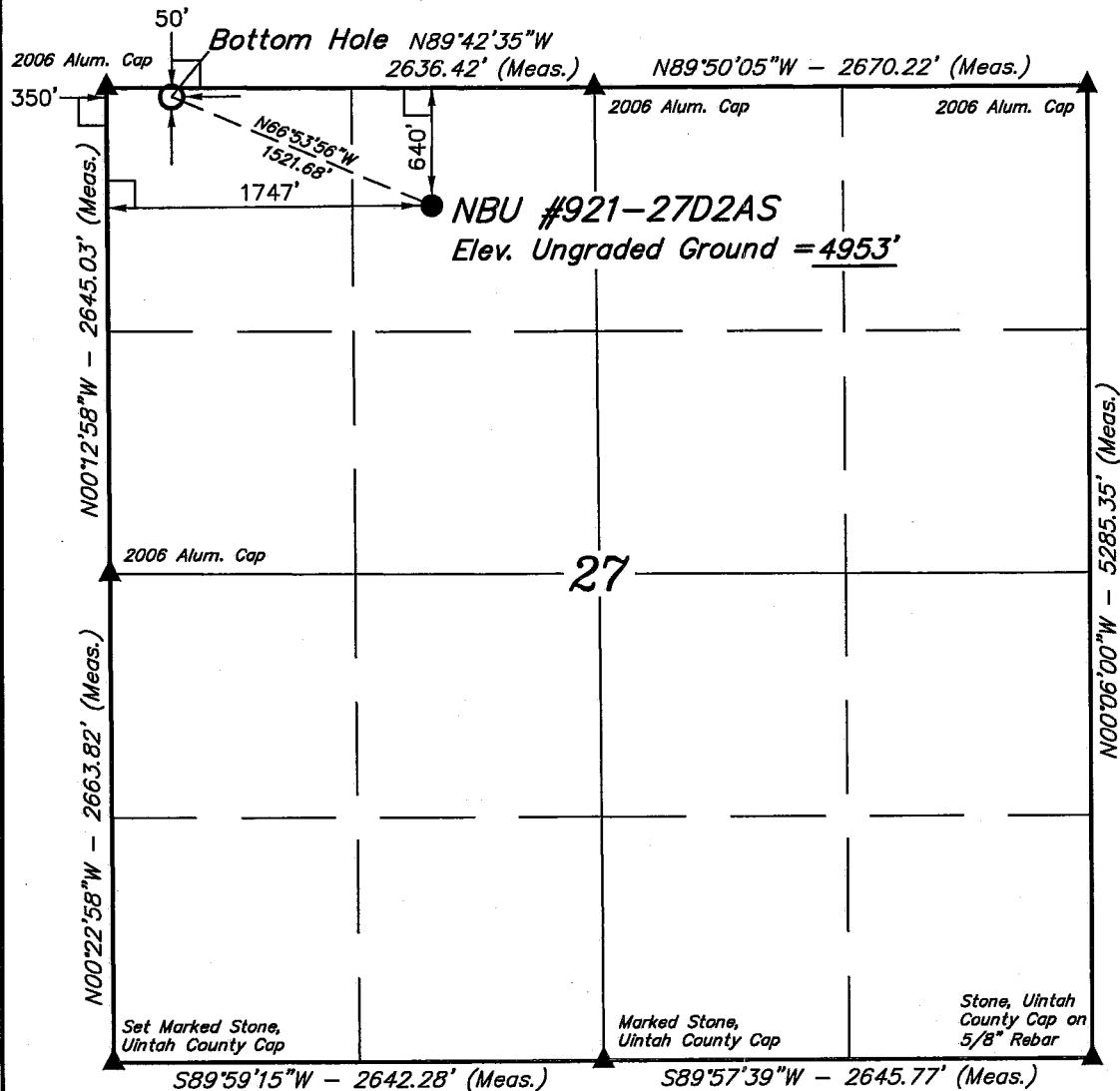
DIV. OF OIL, GAS & MINING

(11/2001)

API NUMBER ASSIGNED: 43-047-40202

APPROVAL:
Date: 11-04-08
By: Kevin McIntyre
(See Instructions on Reverse Side)

T9S, R21E, S.L.B.&M.



LEGEND:

- = 90° SYMBOL
- = PROPOSED WELL HEAD.
- ▲ = SECTION CORNERS LOCATED.

NAD 83 (TARGET BOTTOM HOLE)	NAD 83 (SURFACE LOCATION)
LATITUDE = 40°00'51.11" (40.014197)	LATITUDE = 40°00'45.23" (40.012564)
LONGITUDE = 109°32'45.99" (109.546108)	LONGITUDE = 109°32'28.00" (109.541111)
NAD 27 (TARGET BOTTOM HOLE)	NAD 27 (SURFACE LOCATION)
LATITUDE = 40°00'51.24" (40.014233)	LATITUDE = 40°00'45.36" (40.012600)
LONGITUDE = 109°32'43.51" (109.545419)	LONGITUDE = 109°32'25.52" (109.540422)

Kerr-McGee Oil & Gas Onshore LP

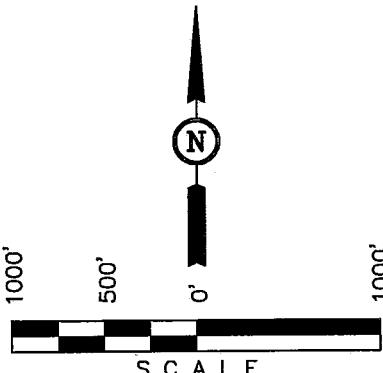
Well location, NBU #921-27D2AS, located as shown in the NE 1/4 NW 1/4 of Section 27, T9S, R21E, S.L.B.&M., Uintah County, Utah.

BASIS OF ELEVATION

TWO WATER TRIANGULATION STATION LOCATED IN THE NW 1/4 OF SECTION 1, T10S, R21E, S.L.B.&M. TAKEN FROM THE BIG PACK MTN NE QUADRANGLE, UTAH, UNTAH COUNTY, 7.5 MINUTE QUAD. (TOPOGRAPHIC MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 5238 FEET.

BASIS OF BEARINGS

BASIS OF BEARINGS IS A G.P.S. OBSERVATION.



CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAN WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

REGISTRATION NO. 161319
STATE OF UTAH
KAY

UINTAH ENGINEERING & LAND SURVEYING
85 SOUTH 200 EAST – VERNAL, UTAH 84078
(435) 789-1017

SCALE 1" = 1000'	DATE SURVEYED: 05-21-08	DATE DRAWN: 05-29-08
PARTY D.K. C.K. C.C.	REFERENCES G.L.O. PLAT	
WEATHER WARM	FILE	Kerr-McGee Oil & Gas Onshore LP

**NBU 921-27D2AS
NENW Sec. 27, T9S,R21E
UINTAH COUNTY, UTAH
ST UO 1194A**

ONSHORE ORDER NO. 1

DRILLING PROGRAM

1. Estimated Tops of Important Geologic Markers:

<u>Formation</u>	<u>Depth</u>
Uinta	0- Surface
Green River	1604'
Birds Nest	1915'
Mahogany	2411'
Wasatch	4940'
Mesaverde	7834'
MVU2	8801'
MVL1	9394'
TVD	9900'
TD	10,261'

2. Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations:

<u>Substance</u>	<u>Formation</u>	<u>Depth</u>
Water	Green River	1604'
Water	Birds Nest	1915'
Water	Mahogany	2411'
Gas	Wasatch	4940'
Gas	Mesaverde	7834'
Gas	MVU2	8801'
Gas	MVL1	9394'
Water	N/A	
Other Minerals	N/A	

3. Pressure Control Equipment (Schematic Attached)

Please refer to the attached Drilling Program.

4. Proposed Casing & Cementing Program:

Please refer to the attached Drilling Program.

5. Drilling Fluids Program:

Please refer to the attached Drilling Program.

6. Evaluation Program:

Please refer to the attached Drilling Program.

7. Abnormal Conditions:

Maximum anticipated bottomhole pressure calculated at 9900' TVD, approximately equals 6138 psi (calculated at 0.62 psi/foot).

Maximum anticipated surface pressure equals approximately 3960 psi (bottomhole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot).

8. Anticipated Starting Dates:

Drilling is planned to commence immediately upon approval of this application.

9. Variances:

Please refer to the attached Drilling Program.

Onshore Order #2 – Air Drilling Variance

Kerr-McGee Oil & Gas Onshore LP (KMG) respectfully requests a variance to several requirements associated with air drilling outlined in Onshore Order 2

- *Blowout Prevention Equipment (BOPE) requirements;*
- *Mud program requirements; and*
- *Special drilling operation (surface equipment placement) requirements associated with air drilling.*

This Standard Operating Practices addendum provides supporting information as to why KMG current air drilling practices for constructing the surface casing hole should be granted a variance to Onshore Order 2 air drilling requirements.

The reader should note that the air rig is used only to construct a stable surface casing hole through a historically difficult lost circulation zone. A conventional rotary rig follows the air rig, and is used to drill and construct the majority of the wellbore.

More notable, KMG has used the air rig layout and procedures outlined below to drill the surface casing hole in approximately 675 wells without incident of blow out or loss of life.

Background

In a typical well, KMG utilizes an air rig for drilling the surface casing hole, an interval from the surface to surface casing depths, which varies in depth from 1,700 to 2,800 feet.

The air rig drilling operation does not drill through productive or over pressured formations in KMG field, but does penetrate the Uinta and Green River Formations. The purpose of the air drilling operation is to overcome the severe loss circulation zone in the Green River known as the Bird's Nest while creating a stable hole for the surface casing. The surface casing hole is generally drilled to approximately 500 feet below the Bird's Nest.

Before the surface air rig is mobilized, a rathole rig is utilized to set and cement conductor pipe through a competent surface formation. Generally, the conductor is set at 40 feet. In some cases, conductor may be set deeper in areas that the surface formation is

not found competent. This rig also drills the rat and mouse holes in preparation for the surface casing and production string drilling operations.

The air rig is then mobilized to drill the surface casing hole by drilling a 12-1/4 inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 12-1/4 inch tri-cone bit. The tri-cone bit is used to drill to the surface casing point, approximately 500 feet below the loss circulation zone (Bird's Nest). The 9-5/8 inch surface casing is then run and cemented in place, thereby isolating the lost circulation zone.

KMG fully appreciates Onshore Order 2 well control and safety requirements associated with a typical air drilling operations. However, the requirements of Onshore Order 2 are excessive with respect to the air rig layout and drilling operation procedures that are currently in practice to drill and control the surface casing hole in KMG Fields.

Variance for BOPE Requirements

The air rig operation utilizes a properly lubricated and maintained air bowl diverter system which diverts the drilling returns to a six-inch blooie line. The air bowl is the only piece of BOPE equipment which is installed during drilling operations and is sufficient to contain the air returns associated with this drilling operation. As was discussed earlier, the drilling of the surface hole does not encounter any over pressured or productive zones, and as a result standard BOPE equipment should not be required. In addition, standard drilling practices do not support the use of BOPE on 40 feet of conductor pipe.

Variance for Mud Material Requirements

Onshore Order 2 also states that sufficient quantities of mud materials shall be maintained or readily accessible for the purpose of assuring adequate well control. Once again, the surface hole drilling operations does not encounter over pressured or productive intervals, and as a result there is not a need to control pressure in the surface hole with a mud system. Instead of mud, the air rigs utilize water from the reserve pit for well control, if necessary. A skid pump which is located near the reserve pit (see attachment) will supply the water to the well bore.

Variance for Special Drilling Operation (surface equipment placement) Requirements
Onshore Order 2 requires specific safety distances or setbacks for the placement of associated standard air drilling equipment, wellbore, and reserve pits. The air rigs used to drill the surface holes are not typical of an air rig used to drill a producing hole in other parts of the US. These are smaller in nature and designed to fit a KMG location. The typical air rig layout for drilling surface hole in the field is attached.

Typically the blooie line discharge point is required to be 100 feet from the well bore. In the case of a KMG well, the reserve pit is only 45 feet from the rig and is used for the drill cuttings. The blooie line, which transports the drill cuttings from the well to the reserve pit, subsequently discharges only 45 feet from the well bore.

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors (see attachment) are located on the rig (1250 cfm) and on a standby trailer (1170 cfm). A

booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does put the booster and standby compressor opposite from the blooie line.

Lastly, Onshore Order 2 addresses the need for an automatic igniter or continuous pilot light on the blooie line. The air rig does not utilize an igniter as the surface hole drilling operation does not encounter productive formations.

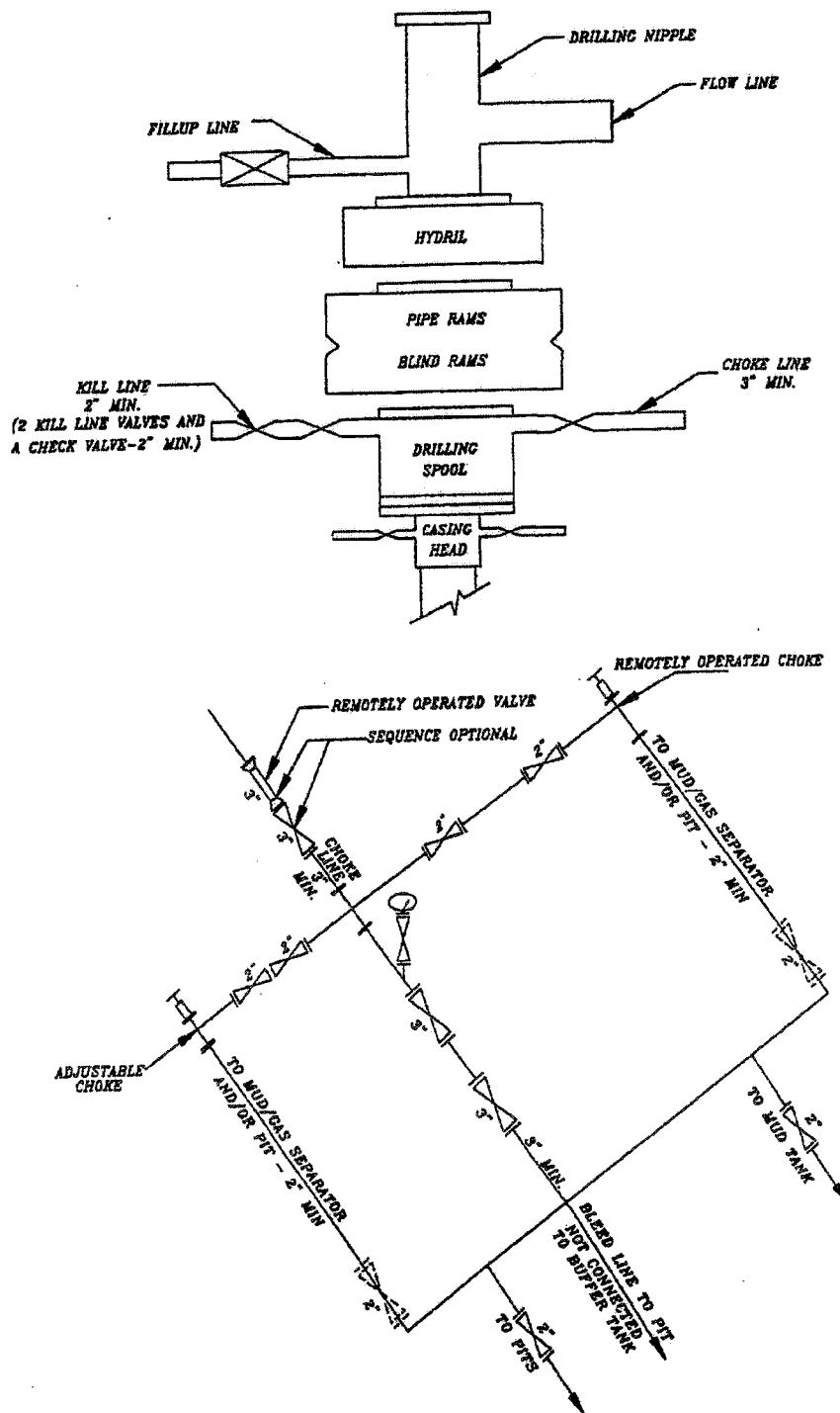
Conclusion

The air rig operating procedures and the attached air rig layout have effectively maintained well control while drilling the surface holes in KMG Fields. KMG respectfully requests a variance from Onshore Order 2 with respect to air drilling well control requirements as discussed above.

10. Other Information:

Please refer to the attached Drilling Program.

EXHIBIT A



SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK

**NBU 921-27D2AS
NENW SEC. 27, T9S, R21E
UINTAH COUNTY, UTAH
ST UO 1194A**

ONSHORE ORDER NO. 1

MULTI-POINT SURFACE USE & OPERATIONS PLAN

Directional Drilling:

In accordance with Oil & Gas Conservation Rule R649-3-11 pertaining to Directional Drilling, this well will be directionally drilled in order to access portions of our lease which are otherwise inaccessible due to topography.

1. Existing Roads:

Refer to Topo Map A for directions to the location.

Refer to Topo Maps A and B for location of access roads within a 2-mile radius.

Refer to Topo Maps A and B for location of access roads within a 2 mile radius.

All existing roads will be maintained and kept in good repair during all drilling and completion operations associated with this well.

2. Planned Access Roads:

No new access road is proposed. Please refer to the attached Topo Map B.

Existence of pipelines; maximum grade; turnouts; major cut and fills, culverts, or bridges; gates, cattle guards, fence cuts, or modifications to existing facilities were determined at the on-site.

Surfacing material may be necessary, depending upon weather conditions.

Surface disturbance and vehicular traffic will be limited to the approved location and approved access route. Any additional area needed will be approved in advance.

3. Location of Existing Wells Within a 1-Mile Radius:

Please refer to Topo Map C.

4. Location of Existing & Proposed Facilities:

The following guidelines will apply if the well is productive.

All production facilities will be located on the disturbed portion of the well pad and at a minimum of 25 feet from the toe of the back slope or the top of the fill slope.

A dike will be constructed completely around those production facilities which contain fluids (i.e., production tanks, produced water tanks, and/or heater/treater). These dikes will be constructed of compacted subsoil, be impervious, hold 100% of the capacity of the largest tank, and be independent of the back cut.

All permanent (on-site six months or longer) above the ground structures constructed or installed, including pumping units, will be painted a flat, non-reflective, earthtone color to match one of the standard environmental colors, as determined by the five state Rocky Mountain Inter-Agency Committee.

All facilities will be painted within six months of installation. Facilities required to comply with the Occupational Safety and Health Act (OSHA) will be excluded. The required color is Carlsbad Canyon, standard color number 2.5Y 6/2.

Any necessary pits will be properly fenced to protect livestock and prevent wildlife entry.

Approximately 30' of 4" pipeline is proposed. Refer to Topo D for the proposed pipeline.

5. Location and Type of Water Supply:

Water for drilling purposes will be obtained from Dalbo Inc.'s underground well located in Ouray, Utah, Sec. 32, T4S, R3E, Water User Claim #43-8496, Application #53617.

Water will be hauled to location over the roads marked on Maps A and B.

No water well is to be drilled on this lease.

6. Source of Construction Materials:

Surface and subsoil materials in the immediate area will be utilized.

Any gravel will be obtained from a commercial source.

7. Methods of Handling Waste Materials:

Drill cuttings will be contained and buried in the reserve pit.

Drilling fluids, including salts and chemicals, will be contained in the reserve pit. Upon termination of drilling and completion operations, the liquid contents of the reserve pit will be removed and disposed of at an approved waste disposal facility within 120 days after drilling is terminated.

The reserve pit will be constructed on the location and will not be located within natural drainage, where a flood hazard exists or surface runoff will destroy or damage the pit walls. The reserve pit will be constructed so that it will not leak, break, or allow discharge of liquids.

A plastic reinforced liner and felt will be used, it will be a minimum of 20 mil thick, with sufficient bedding used to cover any rocks. The liner will overlap the pit walls and be covered with dirt and/or rocks to hold it in place. No trash or scrap that could puncture the liner will be disposed of in the pit.

Any spills of oil, gas, salt water, or other noxious fluids will be immediately cleaned up and removed to an approved disposal site.

A chemical porta-toilet will be furnished with the drilling rig.

Garbage, trash, and other waste materials will be collected in a portable, self-contained, fully enclosed trash cage during operations. No trash will be burned on location.

All debris and other waste material not contained in the trash cage will be cleaned up and removed from the location immediately after removal of the drilling rig.

Any open pits will be fenced during the operations. The fencing will be maintained until such time as the pits are backfilled.

No chemicals subject to reporting under SARA Title III (hazardous materials) in an amount greater than 10,000 pounds will be used, produced, stored, transported, or disposed of annually in association with the drilling of this well. Furthermore, no extremely hazardous substances, as defined in 40 CFR 355, in threshold planning quantities, will be used, produced, stored, transported, or disposed of in association with the drilling of this well.

Any produced water from the proposed well will be contained in a water tank and will then be hauled By truck to one of the pre-approved disposal sites: RNI, Sec. 5, T9S, R22E, NBU #159, Sec. 35, T9S, R21E, Ace Oilfield, Sec. 2, T6S, R20E, MC&MC, Sec. 12, T6S, R19E, Pipeline Facility, Sec. 36, T9S, R20E, Goat Pasture Evaporation Pond, SW/4 Sec. 16, T10S, R22E, Bonanza Evaporation Pond, Sec. 2, T10S, R23E.

8. Ancillary Facilities:

None are anticipated.

9. Well Site Layout: (See Location Layout Diagram)

The attached Location Layout Diagram describes drill pad cross-sections, cuts and fills, and locations of the mud tanks, reserve pit, flare pit, pipe racks, trailer parking, spoil dirt stockpile(s), and surface material stockpile(s).

Please see the attached diagram to describe rig orientation, parking areas, and access roads.

The reserve pit will be lined, and when the reserve pit is closed, the pit liner will be buried below plow depth.

All pits will be fenced according to the following minimum standards:

39 inch net wire will be used with at least one strand of barbed wire on top of the net wire. Barbed wire is not necessary if pipe or some type of reinforcement rod is attached to the top of the entire fence.

The net wire shall be no more than two inches above the ground. The barbed wire shall be three inches over the net wire. Total height of the fence shall be at least 42 inches.

Corner posts shall be cemented and/or braced in such a manner to keep the fence tight at all times.

Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16 feet.

All wire shall be stretched, by using a stretching device, before it is attached to corner posts.

The reserve pit fencing will be on three sides during drilling operations, and on the fourth side when the rig moves off location. Pits will be fenced and maintained until cleanup.

Location size may change prior to the drilling of the well due to current rig availability. If the proposed location is not large enough to accommodate the drilling rig the location will be re-surveyed and a Form 9 shall be submitted.

10. Plans for Reclamation of the Surface:

Producing Location:

Immediately upon well completion, the location and surrounding area will be cleared of all unused tubing, materials, trash, and debris not required for production.

Immediately upon well completion, any hydrocarbons in the pit shall be removed in accordance with 43 CFR 3162.7-1.

A plastic, nylon reinforced liner will be used, it shall be torn and perforated before backfilling of the reserve pit.

Before any dirt work associated with location restoration takes place, the reserve pit shall be as dry as possible. All debris in it will be removed. Other waste and spoil materials will be disposed of immediately upon completion of operations.

The reserve pit and that portion of the location not needed for production facilities/operations will be recontoured to the approximate natural contours. The reserve pit will be reclaimed within 90 days from the date of well completion, weather permitting.

To prevent surface water (s) from standing (ponding) on the reclaimed reserve pit area, final reclamation of the reserve pit will consist of "mounding" the surface three feet above surrounding ground surface to allow the reclaimed pit area to drain effectively.

Upon completion of backfilling, leveling, and recontouring, the stockpiled topsoil will be spread evenly over the reclaimed area(s).

Dry Hole/Abandoned Location:

Abandoned well sites, roads, and other disturbed areas will be restored as near as practical to their original condition. Where applicable, these conditions include the re-establishment of irrigation systems, the re-establishment of appropriate soil conditions, and re-establishment of vegetation as specified.

All disturbed surfaces will be recontoured to the approximate natural contours, with reclamation of the well pad and access road to be performed as soon as practical after final abandonment. Reseeding operations will be performed after completion of other reclamation operations.

11. Surface/Mineral Ownership:

SITLA
675 East 500 South, Suite 500
Salt Lake City, UT 84102

12. Other Information:

All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, the approved Plan of Operations, and any applicable Notice of Lessees. The Operator is fully responsible for the actions of his subcontractors. A copy of these conditions will be furnished to the field representative to ensure compliance.

The Operator will control noxious weeds along Rights-Of-Way for roads, pipelines, well sites, or other applicable facilities.

A Class III archaeological survey will be submitted when report becomes available.

This location is not within 460' from the boundary of the Natural Buttes Unit, nor is it within 460' of any non-committed tract lying within the boundaries of the Unit.

13. Lessee's or Operators's Representative & Certification:

Kevin McIntyre
Regulatory Analyst
Kerr-McGee Oil & Gas Onshore LP
P.O. Box 173779
Denver, CO 80217-3779
(720) 929-6226

Randy Bayne
Drilling Manager
Kerr-McGee Oil & Gas Onshore LP
1368 South 1200 East
Vernal, UT 84078
(435)781-7018

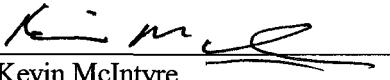
Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

The Operator will be fully responsible for the actions of its subcontractors. A complete copy of the approved "Application for Permit to Drill" will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

Kerr-McGee Oil & Gas Onshore LP is considered to be the operator of the subject well. Kerr-McGee Oil & Gas Onshore LP agrees to be responsible under terms and conditions of the lease for the operations conducted upon leased lands.

Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by State Surety Bond #RLB0005237.

I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions that currently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed by the Operator, its contractors, and subcontractors in conformity with this plan and the terms and conditions under which it is approved.



Kevin McIntyre

7/1/2008
Date

Paleontological Reconnaissance Survey Report

**Survey of Kerr McGee's Proposed Well Pads, Access Roads, and
Pipelines for "NBU #921-27, C2D, D2DS, D2AS, C2AS
(Pad 57N)" (Sec. 27, T 9 S, R 21 E) & "NBU
#1022-32, B3S, D4DS, D4AS, D1S"
(Sec. 32, T 10 S, R 22 E)**

Archy Bench & Ouray SE
Topographic Quadrangle
Uintah County, Utah

June 11, 2008

Prepared by Stephen D. Sandau
Paleontologist for
Intermountain Paleo-Consulting
P. O. Box 1125
Vernal, Utah 84078

INTRODUCTION

At the request of Raleen White of Kerr McGee Oil & Gas Onshore LP and authorized by James Kirkland of the Office of the State Paleontologist, a paleontological reconnaissance survey of Kerr McGee's proposed "NBU #921-27, C2D, D2DS, D2AS, C2AS (Pad 57N)" (Sec. 27, T 9 S, R 21 E) & "NBU #1022-32, B3S, D4DS, D4AS, D1S" (Sec. 32, T 10 S, R 22 E) was conducted by Stephen Sandau and Daniel Burk on June 3, 2008. The survey was conducted under Utah Paleontological Investigations Permit #07-356. This survey to collect any paleontological materials discovered during the construction processes in danger of damage or destruction was done to meet requirements of the National Environmental Policy Act of 1969, and other State and Federal laws and regulations that protect paleontological resources.

FEDERAL AND STATE REQUIREMENTS

As mandated by the State of Utah, paleontologically-sensitive geologic formations on State lands that may be impacted due to ground disturbance require paleontological evaluation. This requirement complies with:

- 1) The National Environmental Policy Act of 1969 (NEPA) (42 U.S.C. 4321 et. Seq., P.L. 91-190);
- 2) The Federal Land Policy and Management Act (FLPMA) of 1976 (90 Stat. 2743, 43 U.S.C. § 1701-1785, et. Seq., P.L. 94-579).
- 3) The National Historic Preservation Act. 16 U.S.C. § 470-1, P.L. 102-575 in conjunction with 42 U.S.C. § 5320; and
- 4) The Utah Geological Survey. S. C. A.: 63-73-1. (1-21) and U.C.A.: 53B-17-603.

The new Potential Fossil Yield Classification (PFYC) System (October, 2007) replaces the Condition Classification System from Handbook H-8270-1. Geologic units are classified based on the relative abundance of vertebrate fossils or scientifically significant invertebrate or plant fossils and their sensitivity to adverse impacts, with a higher class number indicating a higher potential.

- ***Class 1 – Very Low.*** Geologic units (igneous, metamorphic, or Precambrian) not likely to contain recognizable fossil remains.
- ***Class 2 – Low.*** Sedimentary geologic units not likely to contain vertebrate fossils or scientifically significant non-vertebrate fossils. (Including modern eolian, fluvial, and colluvial deposits etc...)
- ***Class 3 – Moderate or Unknown.*** Fossiliferous sedimentary geologic units where fossil content varies in significance, abundance, and predictable occurrence; or sedimentary units of unknown fossil potential.
 - ***Class 3a – Moderate Potential.*** The potential for a project to be sited on or impact a significant fossil locality is low, but is somewhat higher for common fossils.
 - ***Class 3b – Unknown Potential.*** Units exhibit geologic features and preservational conditions that suggest significant fossils could be present, but little information about the paleontological resources of the unit or the area is known.
- ***Class 4 – High.*** Geologic units containing a high occurrence of vertebrate fossils or scientifically significant invertebrate or plant fossils, but may vary in abundance and predictability.

- *Class 4a* – Outcrop areas with high potential are extensive (greater than two acres) and paleontological resources may be susceptible to adverse impacts from surface disturbing actions.
- *Class 4b* – Areas underlain by geologic units with high potential but have lowered risks of disturbance due to moderating circumstances such as a protective layer of soil or alluvial material; or outcrop areas are smaller than two contiguous acres.
- ***Class 5 – Very High.*** Highly fossiliferous geologic units that consistently and predictably produce vertebrate fossils or scientifically significant invertebrate or plant fossils.
 - *Class 5a* - Outcrop areas with very high potential are extensive (greater than two acres) and paleontological resources may be susceptible to adverse impacts from surface disturbing actions.
 - *Class 5b* - Areas underlain by geologic units with very high potential but have lowered risks of disturbance due to moderating circumstances such as a protective layer of soil or alluvial material; or outcrop areas are smaller than two contiguous acres.

It should be noted that many fossils, though common and unimpressive in and of themselves, can be important paleo-environmental, depositional, and chronostratigraphic indicators.

LOCATION

Kerr McGee's proposed well pads, access roads, and pipelines for "NBU #921-27, C2D, D2DS, D2AS, C2AS (Pad 57N)" (Sec. 27, T 9 S, R 21 E) & "NBU #1022-32, B3S, D4DS, D4AS, D1S" (Sec. 32, T 10 S, R 22 E) is located on lands managed by the State of Utah Trust Lands Administration (SITLA) one in the Cottonwood and Sand Wash area, 4 miles south of the White River, and approximately 9 miles southeast of Ouray, Utah, and the other in the East Bench area, approximately 16 miles southeast of Ouray, Utah. The project area can be found on the Archy Bench & Ouray SE 7.5 minute U. S. Geological Survey Quadrangle Maps, Uintah County, Utah.

PREVIOUS WORK

The basins of western North America have long produced some of the richest fossil collections in the world. Early Cenozoic sediments are especially well represented throughout the western interior. Paleontologists started field work in Utah's Uinta Basin as early as 1870 (Betts, 1871; Marsh, 1871, 1875a, 1875b). The Uinta Basin is located in the northeastern corner of Utah and covers approximately 31,000 sq. km (12,000 sq. miles) ranging in elevation from 1,465 to 2,130 m (4,800 to 7,000 ft) (Marsell, 1964; Hamblin et al., 1987). Middle to late Eocene time marked a period of dramatic change in the climate, flora, (Stucky, 1992) and fauna (Black and Dawson, 1966) of North America.

GEOLOGICAL AND PALEONTOLOGICAL OVERVIEW

Early in the geologic history of Utah, some 1,000 to 600 Ma, an east-west trending basin developed creating accommodation for 25,000 feet of siliclastics. Uplift of that filled-basin during the early Cenozoic formed the Uinta Mountains (Rasmussen et al., 1999). With the rise of the Uinta Mountains the asymmetrical synclinal Uinta Basin is thought to have formed through the effects of down warping in connection with the uplift. Throughout the Paleozoic and Mesozoic deposition fluctuated between marine and non-marine environments laying down a thick succession of sediments in the area now occupied by the Uinta Basin. Portions of these beds crop out on the margins of the basin due to tectonic events during the late Mesozoic.

Early Tertiary Uinta Basin sediments were deposited in alternating lacustrine and fluvial environments. Large shallow lakes periodically covered most of the basin and surrounding areas during early to mid Eocene time (Abbott, 1957). These lacustrine sediments show up in the western part of the basin, dipping 2-3 degrees to the northeast and are lost in the subsurface on the east side. The increase of cross-bedded, coarse-grained sandstone and conglomerates preserved in paleo-channels indicates a transition to a fluvial environment toward the end of the epoch.

Four Eocene formations are recognized in the Uinta Basin: the Wasatch, Green River, Uinta and Duchesne River, respectively (Wood, 1941). The Uinta Formation is subdivided into two lithostratigraphic units namely: the Wagonhound Member (Wood, 1934), formerly known as Uinta A and B (Osborn, 1895, 1929) and the Myton Member previously regarded as the Uinta C.

Within the Uinta Basin in northeast Utah, the Uinta Formation in the western part of the basin is composed primarily of lacustrine sediments inter-fingering with over-bank deposits of silt and mudstone and westward flowing channel sands and fluvial clays, muds, and sands in the east (Bryant et al, 1990; Ryder et al, 1976). Stratigraphic work done by early geologists and paleontologists within the Uinta Formation focused on the definition of rock units and attempted to define a distinction between early and late Uintan faunas (Riggs, 1912; Peterson and Kay, 1931; Kay 1934). More recent work focused on magnetostratigraphy, radioscopic chronology, and continental biostratigraphy (Flynn, 1986; Prothero, 1996). Well-known for its fossiliferous nature and distinctive mammalian fauna of mid-Eocene Age, the Uinta Formation is the type formation for the Uintan Land Mammal Age (Wood et al, 1941).

The Duchesne River Formation of the Uinta Basin in northeastern Utah is composed of a succession of fluvial and flood plain deposits composed of mud, silt and sandstone. The source area for these late Eocene deposits is from the Uinta Mountains indicated by paleocurrent data (Anderson and Picard, 1972). In Peterson's (1931c) paper, the name "Duchesne Formation" was applied to the formation and it was later changed to the "Duchesne River Formation" by Kay (1934). The formation is divided up into four members: the Brennan Basin, Dry Gulch Creek, LaPoint, and Starr Flat (Anderson and Picard, 1972). Debates concerning the Duchesne River Formation, as to whether its age was late Eocene or early Oligocene, have surfaced throughout the literature of the last century (Wood et al., 1941; Scott 1945). Recent paleo-magnetostratigraphic work (Prothero, 1996) shows that the Duchesne River Formation is late Eocene in time.

FIELD METHODS

In order to determine if the proposed project area contained any paleontological resources, a reconnaissance survey was performed. An on-site observation of the proposed areas undergoing surficial disturbance is necessary because judgments made from topographic maps alone are often unreliable. Areas of low relief have potential to be erosional surfaces with the possibility of bearing fossil materials rather than surfaces covered by unconsolidated sediment or soils.

When found within the proposed construction areas, outcrops and erosional surfaces were checked to determine if fossils were present and to assess needs. Careful effort is made during surveys to identify and evaluate significant fossil materials or fossil horizons when they are found. Microvertebrates, although rare, are occasionally found in anthills or upon erosional surfaces and are of particular importance.

PROJECT AREA

The project area is situated in the Wagonhound Member (Uinta A & B) of the Uinta Formation. The following list provides a description of the individual wells and their associated pipelines and access roads.

NBU #921-27, C2D, D2DS, D2AS, C2AS (Pad 57N)

The proposed twin well pad upgrade and pipeline are located in the NE/NW quarter-quarter section of Sec. 27, T 9 S, R 21 E (Figure 1). The proposed twin well pad upgrade and pipeline are located on previously disturbed area and sandy colluvium derived from the underlying Wagonhound which outcrops on the west edge of the proposed well pad upgrade. The outcrops are on the surface and are gray-green, medium-grained, sandstone. No fossils were found.

NBU #1022-32, B3S, D4DS, D4AS, D1S

The proposed twin well pad upgrade, pipeline re-route, and road re-route are located in the NE/NW quarter-quarter section of Sec. 32, T 10 S, R 22 E (Figure 2). The proposed well pad upgrade is located on an existing road. The proposed pipeline and road re-routes are go around the proposed well pad to the north. The proposed twin well pad upgrade, pipeline re-route, and road re-route are located on sandy colluvium in an area surrounded by 75 to 100 feet high hills with outcrops of tan and maroon sandstones and siltstones. Scattered, unidentifiable bone chips were found along the east end of the proposed pipeline and road re-routes but no other fossil were found.

SURVEY RESULTS

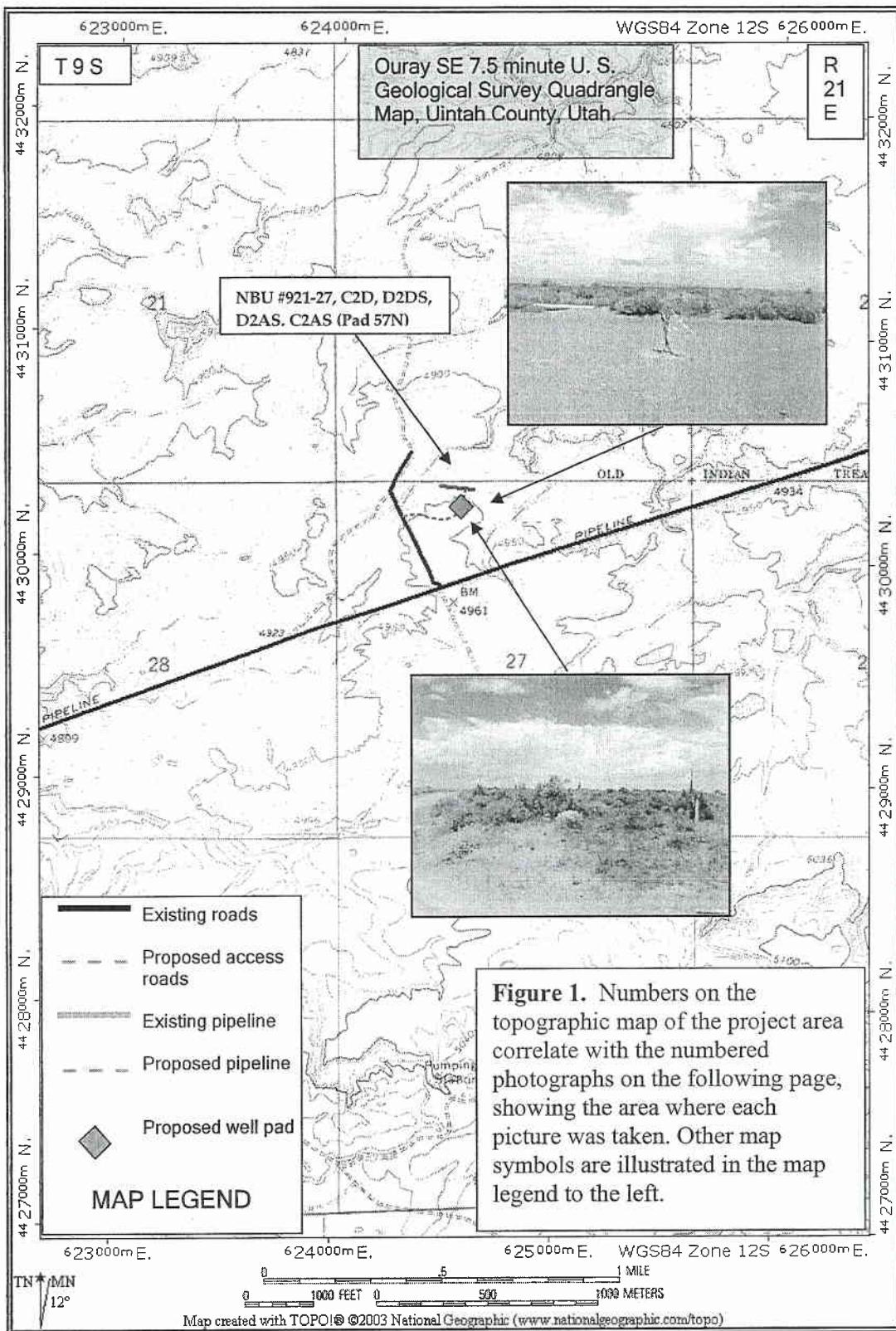
PROJECT	GEOLOGY	PALEONTOLOGY
“NBU #921-27, C2D, D2DS, D2AS, C2AS (Pad 57N)” (Sec. 27, T 9 S, R 21 E)	The proposed twin well pad upgrade and pipeline are located on previously disturbed area and sandy colluvium derived from the underlying Wagonhound which outcrops on the west edge of the proposed well pad upgrade. The outcrops are on the surface and are gray-green, medium-grained, sandstone.	No fossils were found. Class 3a
“NBU #1022-32, B3S, D4DS, D4AS, D1S” (Sec. 32, T 10 S, R 22 E)	The proposed twin well pad upgrade, pipeline re-route, and road re-route are located on sandy colluvium in an area surrounded by 75 to 100 feet high hills with outcrops of tan and maroon sandstones and siltstones.	Scattered, unidentifiable bone chips were found along the east end of the proposed pipeline and road re-routes but no other fossil were found. Class 3a

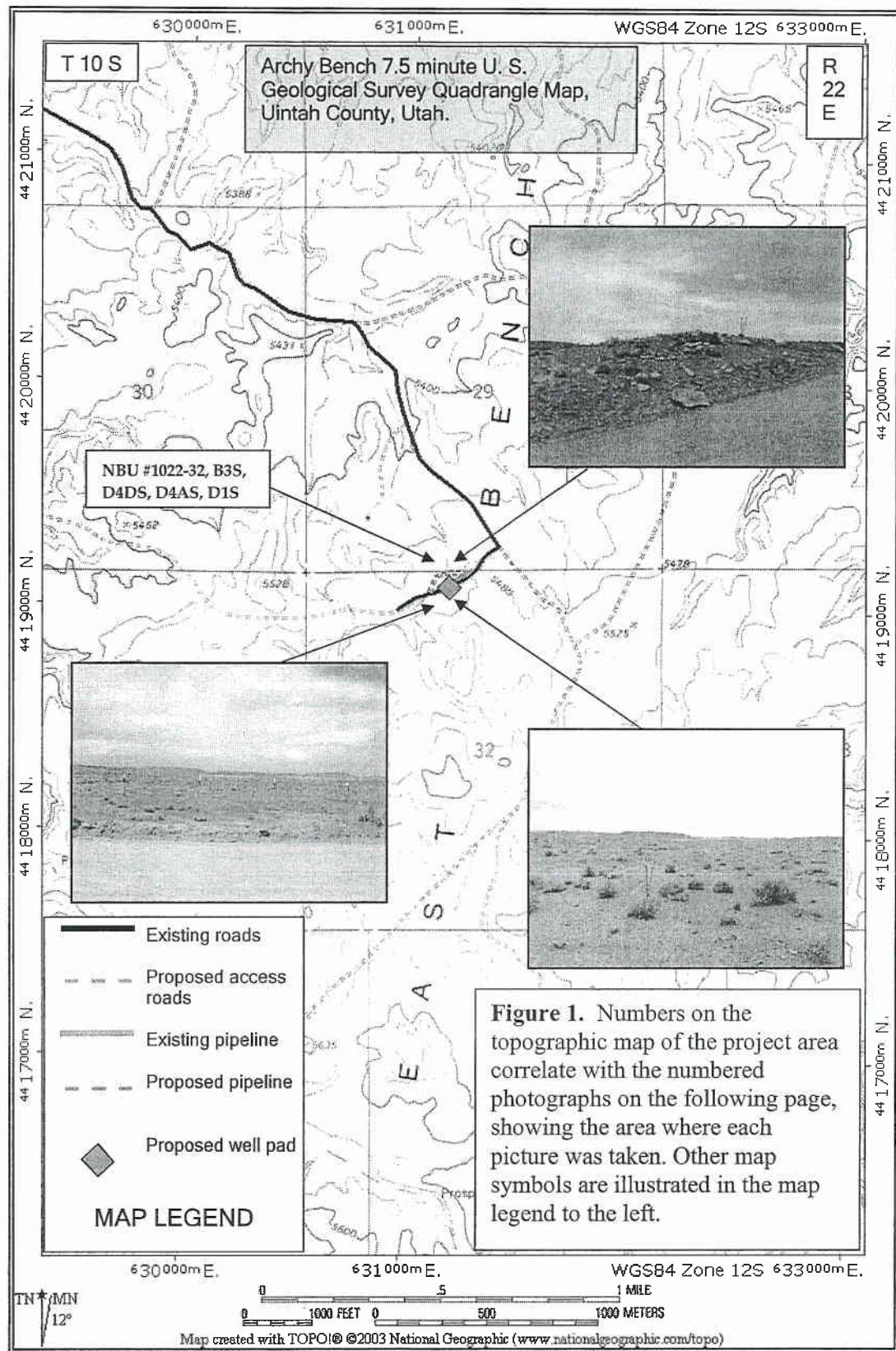
RECOMMENDATIONS

A reconnaissance survey was conducted for Kerr McGee's proposed well pad, access road, and pipeline for “NBU #921-27, C2D, D2DS, D2AS, C2AS (Pad 57N)” (Sec. 27, T 9 S, R 21 E) & “NBU #1022-32, B3S, D4DS, D4AS, D1S” (Sec. 32, T 10 S, R 22 E). The well pads and the associated access roads and pipelines covered in this report showed no signs of vertebrate fossils. Therefore, we recommend that no paleontological restrictions should be placed on the development of the projects included in this report.

Buried pipeline will encounter Uinta formation sediments along most of the staked pipeline corridors yet indications from surface fossils predict that little if any vertebrate fossils will be disturbed.

Nevertheless, if any vertebrate fossil(s) are found during construction within the project area, Operator (Lease Holder) will report all occurrences of paleontological resources discovered to a geologist with the Office of the State Paleontologist. The operator is responsible for informing all persons in the areas who are associated with this project of the requirements for protecting paleontological resources. Paleontological resources found on the public lands are recognized by the State as constituting a fragile and nonrenewable scientific record of the history of life on earth, and so represent an important and critical component of America's natural heritage.





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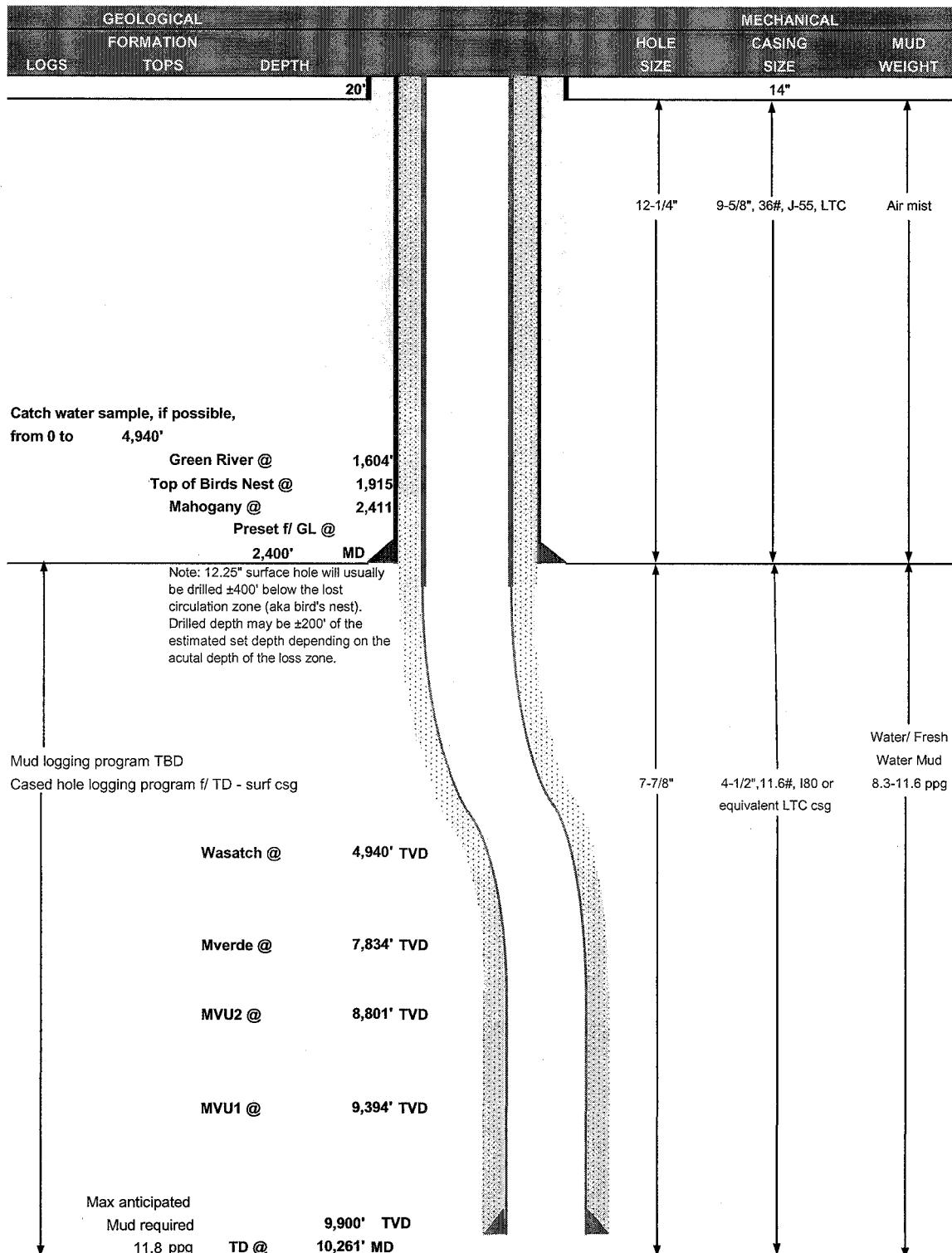
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KERR-MCGEE OIL & GAS ONSHORE LP
DRILLING PROGRAM

COMPANY NAME	KERR-MCGEE OIL & GAS ONSHORE LP			DATE	July 1, 2008	
WELL NAME	NBU 921-27D2AS			TD	9,900'	TVD
FIELD	Natural Buttes	COUNTY	Uintah	STATE	Utah	ELEVATION
					4,953' GL	KB 4,968'
SURFACE LOCATION	NENW 640' FNL & 1747' FWL, Sec. 27, T 9S R 21E					
	Latitude:	40.0126	Longitude:	-109.540422	NAD 27	
BTM HOLE LOCATION	NNWW 50' FNL & 350' FWL, Sec. 27, T 9S R 21E					
	Latitude:	40.014233	Longitude:	-109.545419	NAD 27	
OBJECTIVE ZONE(S)	Wasatch/Mesaverde					
ADDITIONAL INFO	Regulatory Agencies: UDOGM (MINERALS AND SURFACE), BLM, Tri-County Health Dept.					





KERR-MCGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

CASING PROGRAM

	SIZE	INTERVAL	WT.	GR.	CPLG.	DESIGN FACTORS		
						BURST	COLLAPSE	TENSION
CONDUCTOR	14"	0-40'				3520	2020	453000
SURFACE	9-5/8"	0 to 2400	36.00	J-55	LTC	0.90	1.80	6.67
PRODUCTION	4-1/2"	0 to 9900	11.60	I-80	LTC	7780	6350	201000
						2.00	1.05	1.94

1) Max Anticipated Surf. Press.(MASP) (Surface Casing) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point)

2) MASP (Prod Casing) = Pore Pressure at TD - (.22 psi/ft-partial evac gradient x TD)

(Burst Assumptions: TD = 11.8 ppg)

(Collapse Assumption: Fully Evacuated Casing, Max MW)

(Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

MASP 3960 psi

CEMENT PROGRAM

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE Option 1	LEAD TOP OUT CMT (1)	500	Premium cmt + 2% CaCl + .25 pps flocele	215	60%	15.60	1.18
		200	20 gals sodium silicate + Premium cmt + 2% CaCl + .25 pps flocele	50		15.60	1.18
	TOP OUT CMT (2)	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18
SURFACE Option 2	LEAD TOP OUT CMT	1500	NOTE: If well will circulate water to surface, option 2 will be utilized 65/35 Poz + 6% Gel + 10 pps gilsonite + .25 pps Flocele + 3% salt BWOW	360	35%	12.60	1.81
		500	Premium cmt + 2% CaCl + .25 pps flocele	180	35%	15.60	1.18
	as required		Premium cmt + 2% CaCl	as req.		15.60	1.18
	TAIL						
PRODUCTION	LEAD 4,431'		Premium Lite II + 3% KCl + 0.25 pps celloflake + 5 pps gilsonite + 10% gel + 0.5% extender	420	40%	11.00	3.38
		5,830'	50/50 Poz/G + 10% salt + 2% gel +.1% R-3	1430	40%	14.30	1.31
	TAIL						

*Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

*Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

SURFACE	Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe.
PRODUCTION	Float shoe, 1 jt, float collar. Centralize first 3 joints & every third joint to top of tail cement with bow spring centralizers.

ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

BOPE: 11" 5M with one annular and 2 rams. Test to 5,000 psi (annular to 2,500 psi) prior to drilling out. Record on chart recorder & tour sheet. Function test rams on each trip. Maintain safety valve & inside BOP on rig floor at all times. Kelly to be equipped with upper & lower kelly valves.

Drop Totco surveys every 2000'. Maximum allowable hole angle is 5 degrees.

Most rigs have PVT System for mud monitoring. If no PVT is available, visual monitoring will be utilized.

DRILLING ENGINEER:_____
Brad Laney

DATE: _____

DRILLING SUPERINTENDENT:_____
Randy Bayne

DATE: _____

Kerr-McGee Oil & Gas Onshore LP

NBU #921-27C2AS, #921-27D2AS,
#921-27C2D & #921-27D2DS
SECTION 27, T9S, R21E, S.L.B.&M.

PROCEED IN A WESTERLY DIRECTION FROM VERNAL, UTAH ALONG U.S. HIGHWAY 40 APPROXIMATELY 14.0 MILES TO THE JUNCTION OF STATE HIGHWAY 88; EXIT LEFT AND PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 17.0 MILES TO OURAY, UTAH; PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 6.9 MILES ON THE SEEP RIDGE ROAD TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE EAST; TURN LEFT AND PROCEED IN AN EASTERLY DIRECTION APPROXIMATELY 5.0 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTHEAST; TURN RIGHT AND PROCEED IN A NORTHEASTERLY, THEN EASTERLY, THEN SOUTHEASTERLY DIRECTION APPROXIMATELY 2.0 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTHEAST; TURN LEFT AND PROCEED IN A NORTHEASTERLY DIRECTION APPROXIMATELY 0.5 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTH; TURN LEFT AND PROCEED IN A NORTHERLY, THEN NORTHEASTERLY DIRECTION APPROXIMATELY 0.6 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTHWEST; TURN LEFT AND PROCEED IN A NORTHWESTERLY DIRECTION APPROXIMATELY 1.4 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE EAST; TURN RIGHT AND PROCEED IN AN EASTERLY DIRECTION APPROXIMATELY 0.1 MILES TO THE PROPOSED LOCATION.

TOTAL DISTANCE FROM VERNAL, UTAH TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 47.5 MILES.

Kerr-McGee Oil & Gas Onshore LP
NBU #921-27C2AS, #921-27D2AS,
#921-27C2D & #921-27D2DS
LOCATED IN UNTAH COUNTY, UTAH
SECTION 27, T9S, R21E, S.L.B.&M.

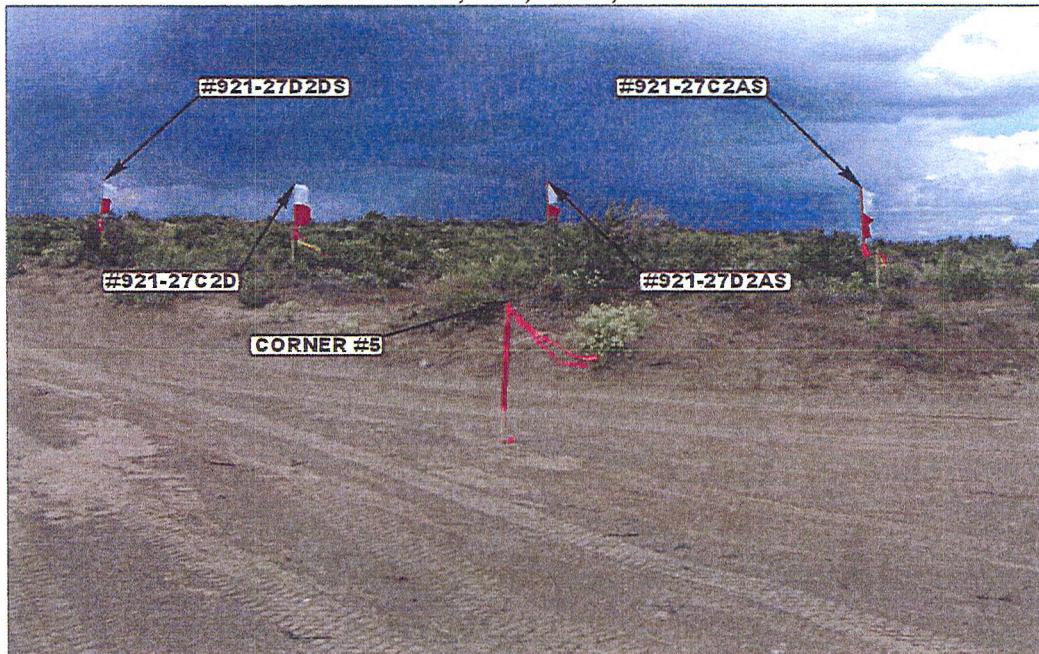


PHOTO: VIEW FROM CORNER #5 TO LOCATION STAKES

CAMERA ANGLE: NORTHWESTERLY



PHOTO: VIEW OF EXISTING ACCESS

CAMERA ANGLE: EASTERLY



UELIS

Uintah Engineering & Land Surveying

- Since 1964 -

85 South 200 East Vernal, Utah 84078
435-789-1017 uels@uelsinc.com

LOCATION PHOTOS	05	29	08	MONTH	DAY	YEAR	PHOTO
TAKEN BY: D.K.	DRAWN BY: Z.L.	REVISED: 00-00-00					

Kerr-McGee Oil & Gas Onshore LP

NBU #921-27C2AS, #921-27D2AS,

#921-27C2D & #921-27D2DS

PIPELINE ALIGNMENT

LOCATED IN UNTAH COUNTY, UTAH

SECTION 27, T9S, R21E, S.L.B.&M.



PHOTO: VIEW FROM TIE-IN POINT

CAMERA ANGLE: SOUTHERLY



UE
ELS

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435-789-1017 uels@uelsinc.com

- Since 1964 -

Pipeline Photos

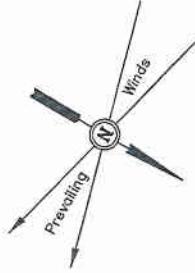
05 29 08
Month Day Year

Photo

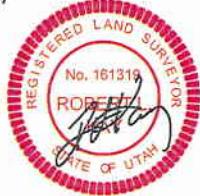
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Kerr-McGee Oil & Gas Onshore LP

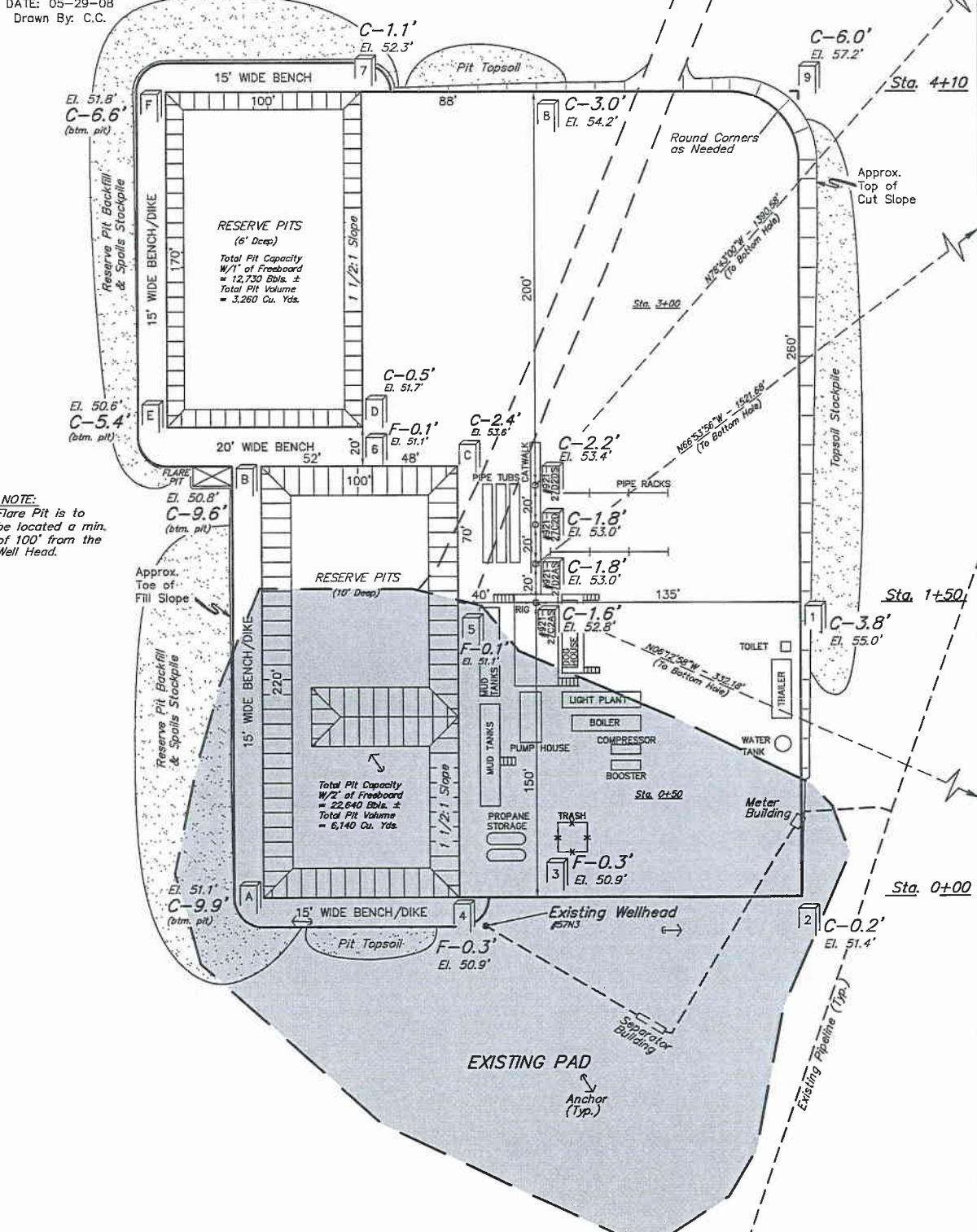
FIGURE #1



SITE PLAN LAYOUT FOR
NBU #921-27C2AS, #921-27D2AS,
#921-27C2D & #921-27D2DS
SECTION 27, T9S, R21E, S.L.B.&M.
NE 1/4 NW 1/4



SCALE: 1" = 50'
DATE: 05-29-08
Drawn By: C.C.

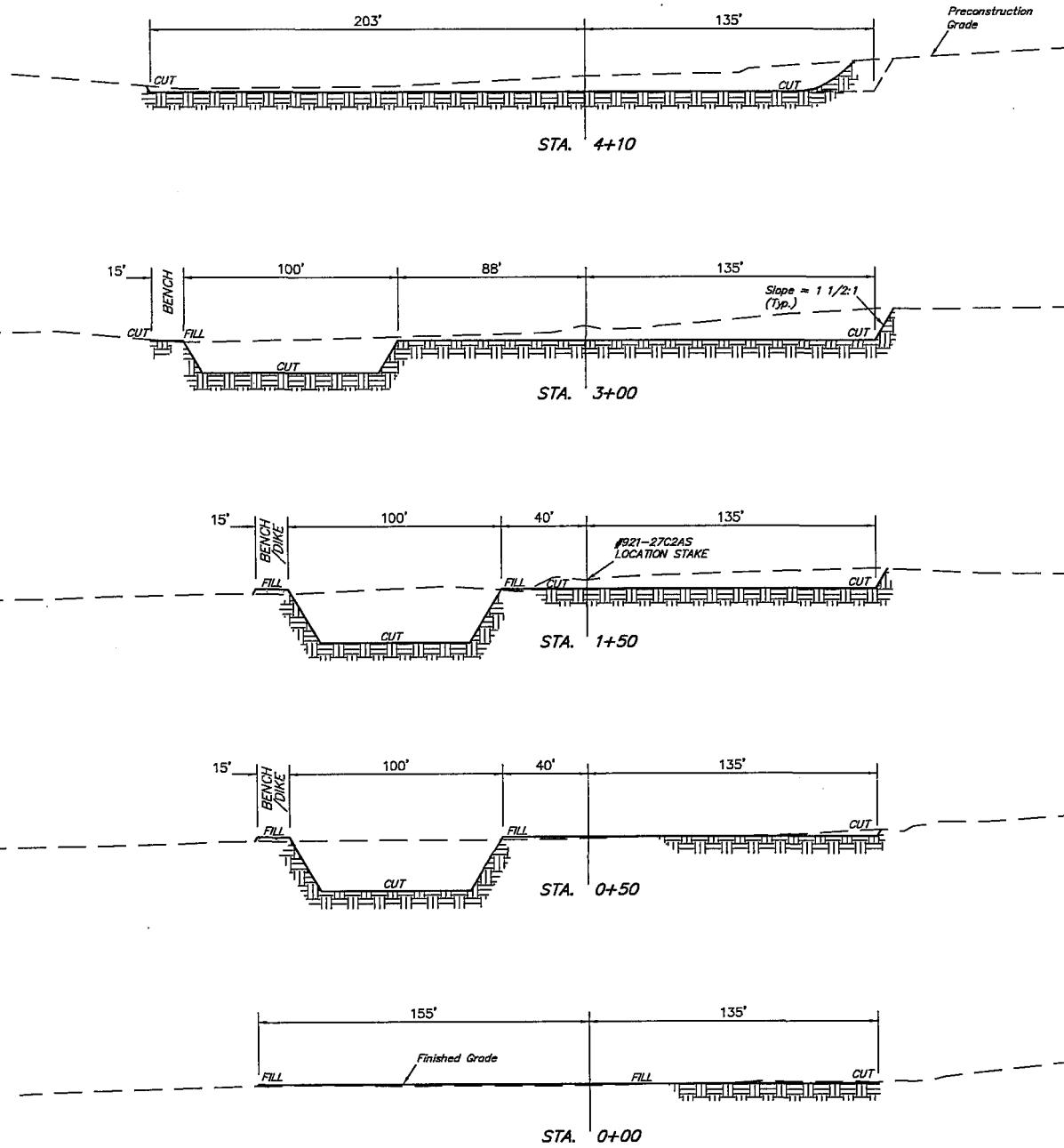
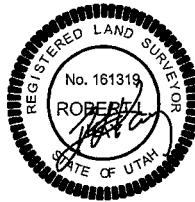


Kerr-McGee Oil & Gas Onshore LP

FIGURE #2

X-Section Scale
1" = 50'
DATE: 05-29-08
Drawn By: C.C.

TYPICAL CROSS SECTIONS FOR
NBU #921-27C2AS, #921-27D2AS,
#921-27C2D & #921-27D2DS
SECTION 27, T9S, R21E, S.L.B.&M.
NE 1/4 NW 1/4



NOTE:

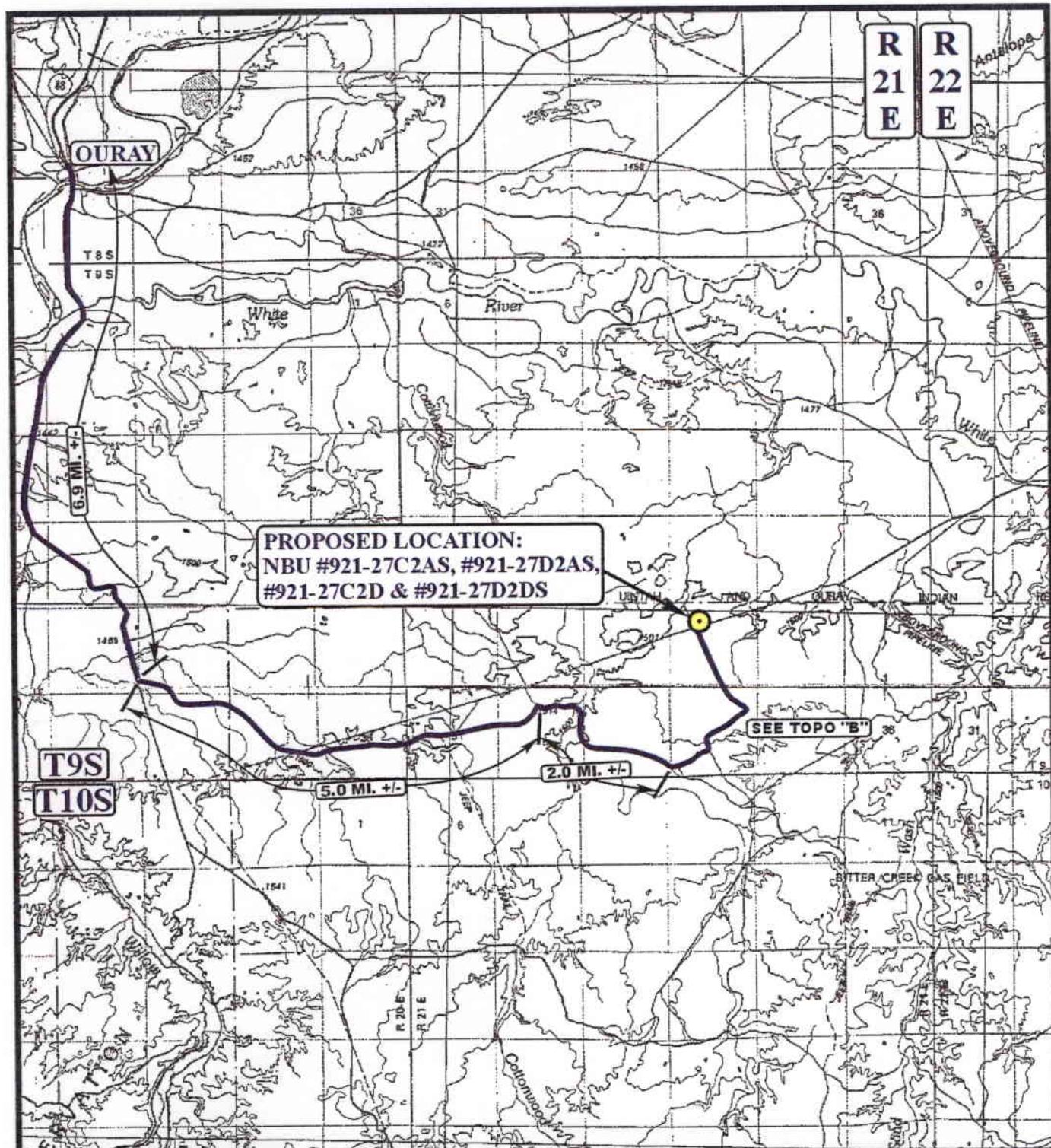
Topsoil should not be
Stripped Below Finished
Grade on Substructure Area.

* NOTE:
FILL QUANTITY INCLUDES
5% FOR COMPACTION

APPROXIMATE YARDAGES

CUT	=	1,750 Cu. Yds.
(6") Topsoil Stripping (New Construction Only)	=	1,750 Cu. Yds.
Remaining Location	=	15,140 Cu. Yds.
TOTAL CUT		= 16,890 CU.YDS.
FILL		= 580 CU.YDS.

EXCESS MATERIAL	= 16,370 Cu. Yds.
Topsoil & Pit Backfill (1/2 Pit Vol.)	= 6,450 Cu. Yds.
EXCESS UNBALANCE (After Interim Rehabilitation)	= 9,860 Cu. Yds.



LEGEND:

● PROPOSED LOCATION

Kerr-McGee Oil & Gas Onshore LP

NBU #921-27C2AS, #921-27D2AS,
#921-27C2D & #921-27D2DS
SECTION 27, T9S, R21E, S.L.B.&M.
NE 1/4 NW 1/4



Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813

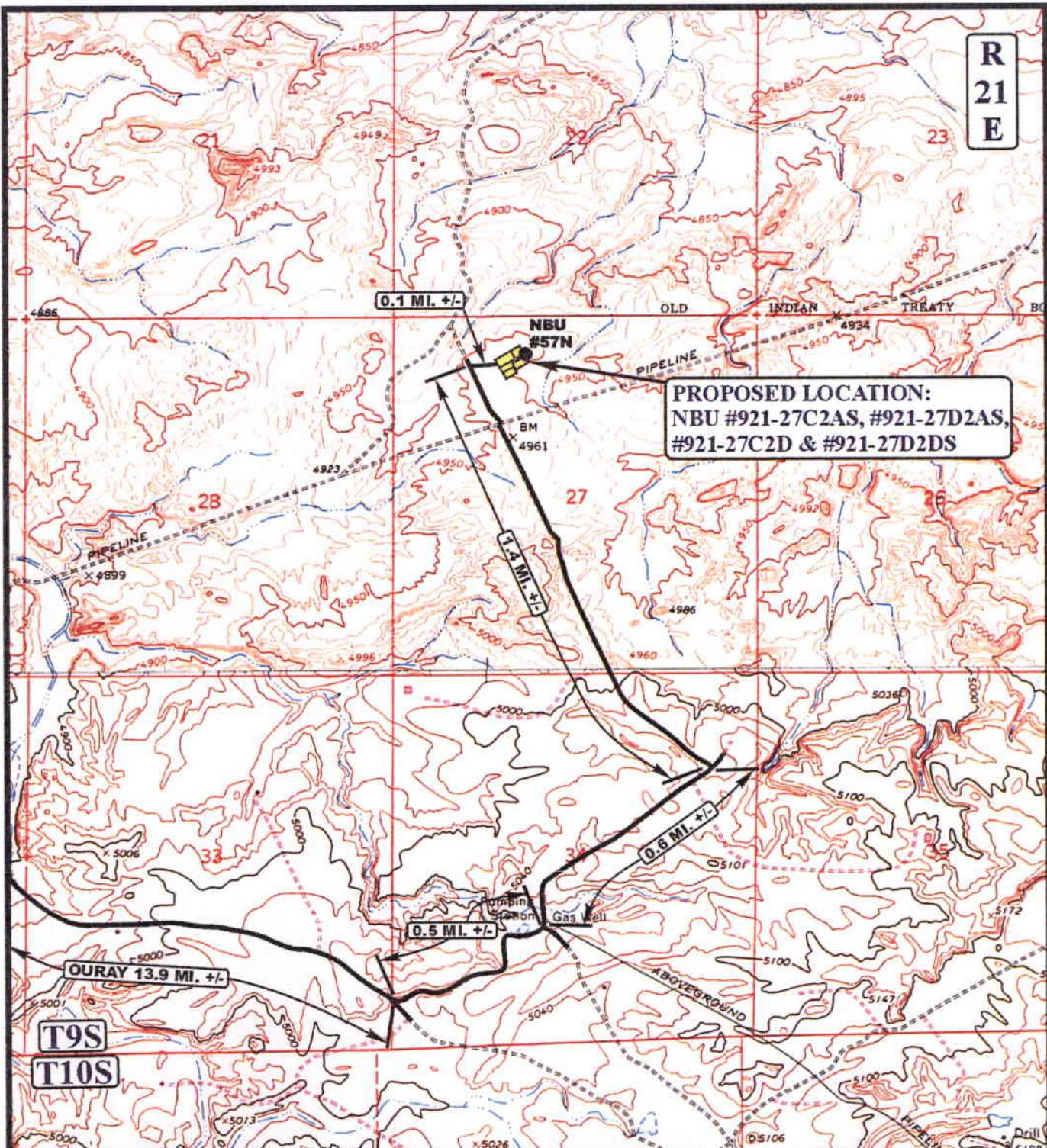


TOPOGRAPHIC MAP 05 29 08
MONTH DAY YEAR

SCALE: 1:100,000 DRAWN BY: Z.L. REVISED: 00-00



R
21
E



LEGEND:

- EXISTING ROAD
- - - PROPOSED ACCESS ROAD

Kerr-McGee Oil & Gas Onshore LP

NBU #921-27C2AS, #921-27D2AS,
#921-27C2D & #921-27D2DS
SECTION 27, T9S, R21E, S.L.B.&M.
NE 1/4 NW 1/4



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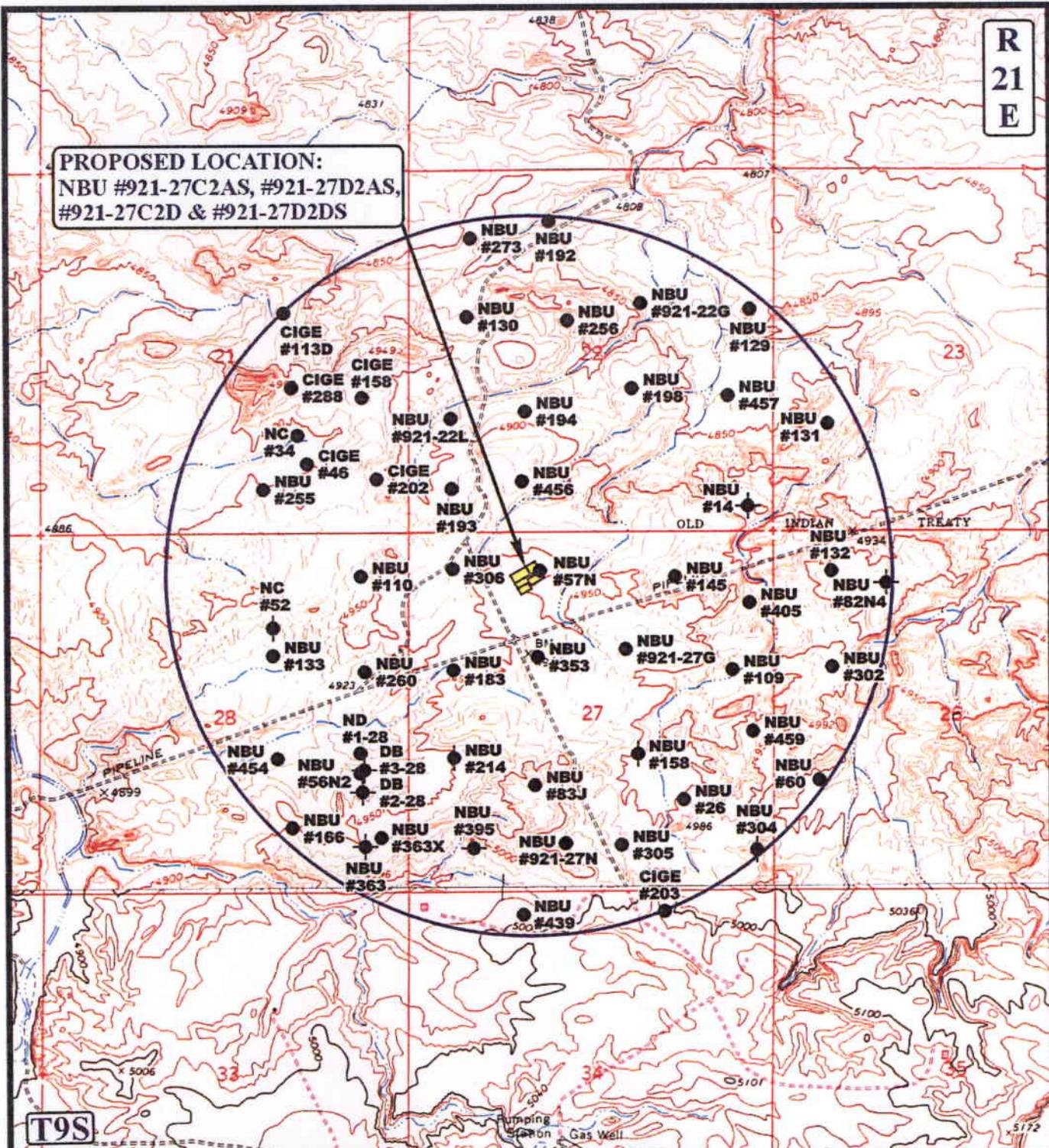
TOPOGRAPHIC MAP 05 29 08

SCALE: 1" = 2000' DRAWN BY: Z.L. REVISED: 00-00-00

B
TOPO

R
21
E

PROPOSED LOCATION:
NBU #921-27C2AS, #921-27D2AS,
#921-27C2D & #921-27D2DS



LEGEND:

- DISPOSAL WELLS
- PRODUCING WELLS
- SHUT IN WELLS
- WATER WELLS
- ABANDONED WELLS
- TEMPORARILY ABANDONED

Kerr-McGee Oil & Gas Onshore LP

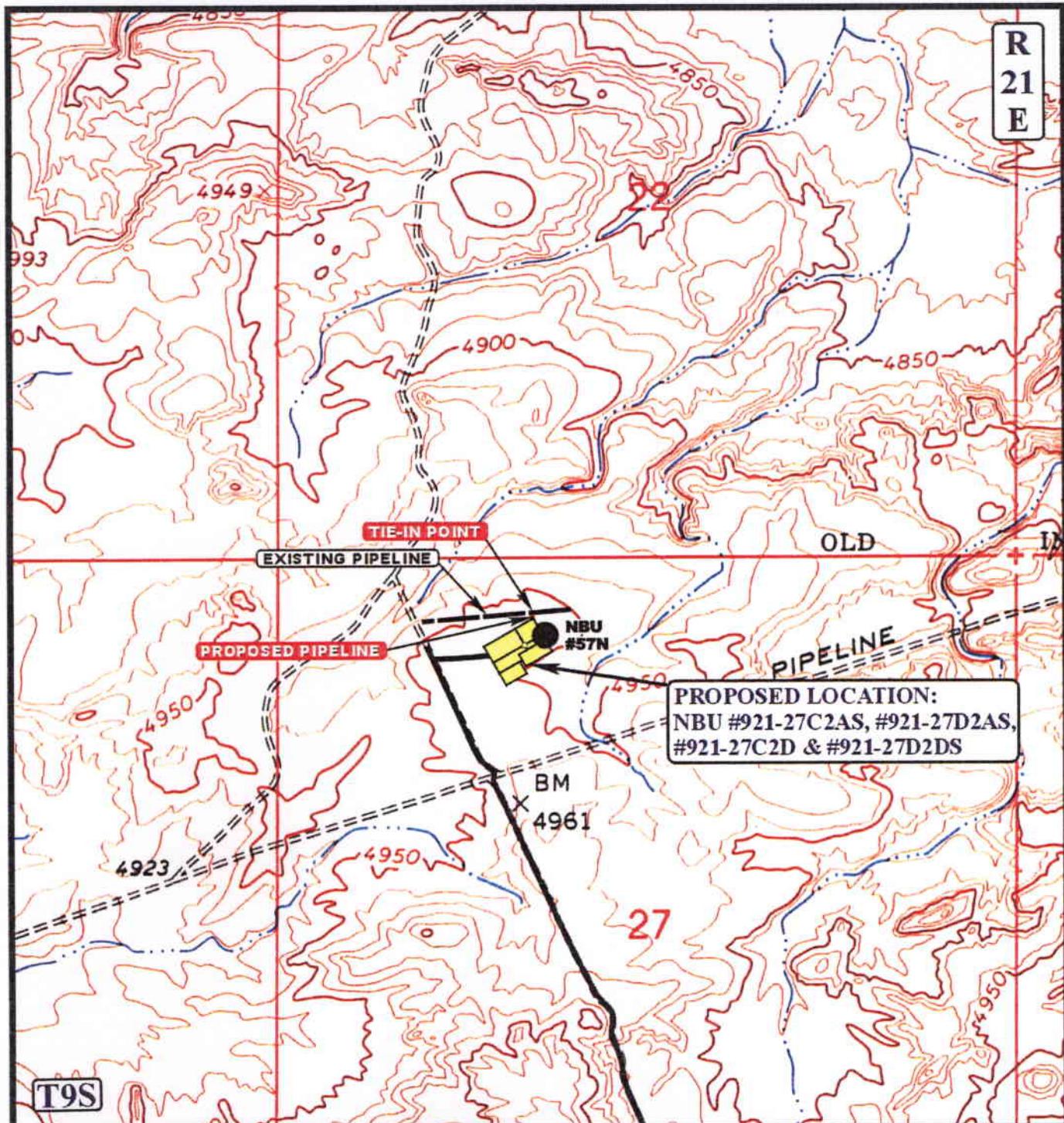
NBU #921-27C2AS, #921-27D2AS,
#921-27C2D & #921-27D2DS
SECTION 27, T9S, R21E, S.L.B.&M.
NE 1/4 NW 1/4



Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813

TOPOGRAPHIC
MAP 05 29 08
SCALE: 1" = 2000' MONTH DAY YEAR
DRAWN BY: Z.L. REVISED: 00-00-00

C
TOPO



APPROXIMATE TOTAL PIPELINE DISTANCE = 30' +/-

LEGEND:

- EXISTING ROAD
- - - PROPOSED ACCESS ROAD

Kerr-McGee Oil & Gas Onshore LP

NBU #921-27C2AS, #921-27D2AS,
#921-27C2D & #921-27D2DS
SECTION 27, T9S, R21E, S.L.B.&M.
NE 1/4 NW 1/4



Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813

TOPOGRAPHIC MAP 05 29 08
MONTH DAY YEAR

SCALE: 1" = 1000' DRAWN BY: Z.L. REVISED: 00-00-00

D
TOPO



Weatherford®

Drilling Services

Proposal



**Anadarko Petroleum Corp.
NBU 57N PAD
NBU 921-27D2AS
UINTAH COUNTY, UTAH
WELL FILE: PLAN 1
JUNE 26, 2008**

Weatherford International Ltd.
2000 Oil Drive
Casper, Wyoming 82604
+1.307.265.1413 Main
+1.307.235.3958 Fax
www.weatherford.com

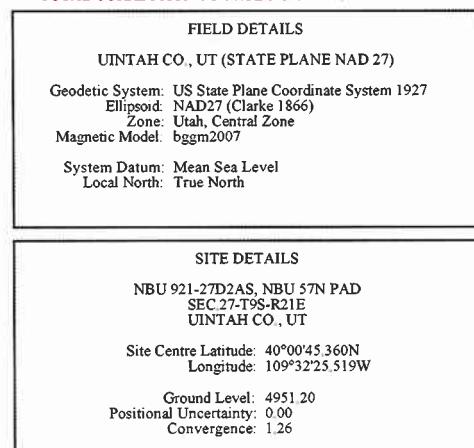
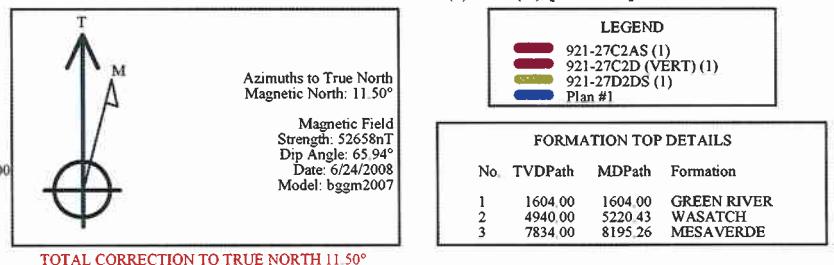
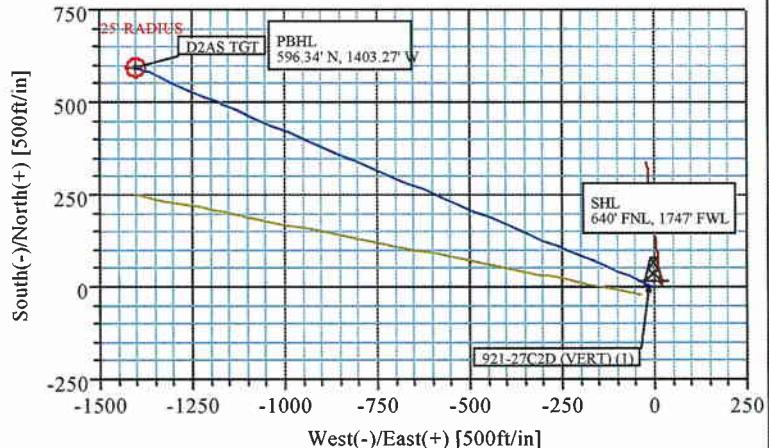
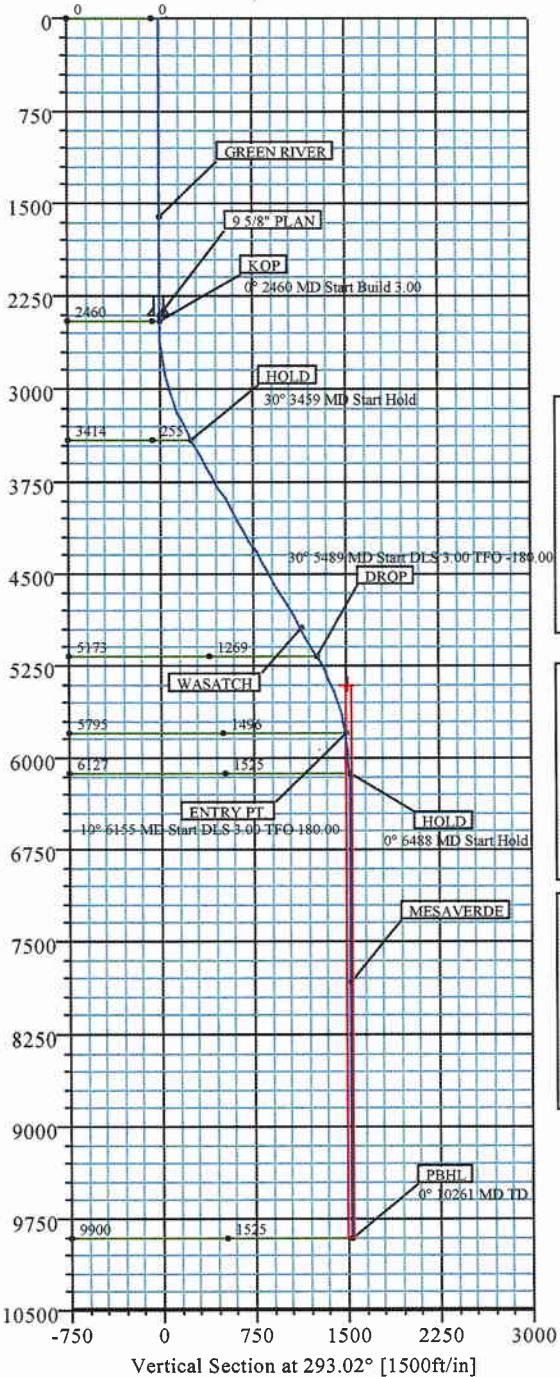
NBU 921-27D2AS
640' FNL, 1747' FWL
SECTION 27-T9S-R21E
UINTAH COUNTY, UT

SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	2460.00	0.00	0.00	2460.00	0.00	0.00	0.00	0.00	0.00	0.00
3	3458.94	29.97	293.02	3414.01	99.87	-235.00	3.00	0.00	255.24	
4	5488.97	29.97	293.02	5172.63	496.48	-1168.26	0.00	0.00	1269.38	
5	6134.58	10.00	293.02	5795.00	584.99	-1376.56	3.00	-180.00	1495.71	
6	6487.91	0.00	0.00	6126.64	596.34	-1403.27	3.00	180.00	1524.72	
7	10261.26	0.00	0.00	9900.00	596.34	-1403.27	0.00	0.00	1524.72	

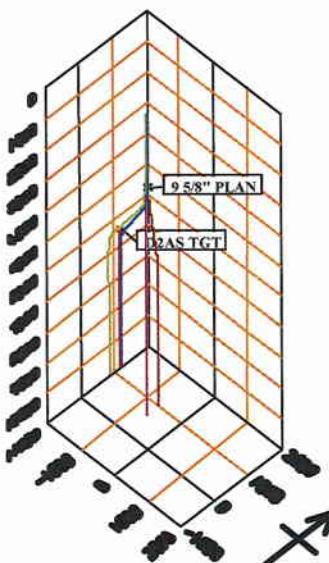
WELL DETAILS							
Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
921-27D2AS	0.00	0.00	617646.87	2548817.98	40°00'45.360N	109°32'25.519W	N/A

TARGET DETAILS						
Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
D2AS TGT	5400.00	594.77	-1399.57	618210.84	2547405.72	Circle (Radius: 25)

True Vertical Depth [1500ft/in]



Weatherford®



Plan: Plan #1 (921-27D2AS/1)

Created By: Bret Wolford

Date: 6/26/2008



Weatherford International Ltd.

WELL PLAN REPORT



Company: Anadarko-Kerr-McGee
Field: UNTAH CO., UT (STATE PLANE NAD 27)
Site: NBU 921-27D2AS, NBU 57N PAD
Well: 921-27D2AS
Wellpath: 1

Date: 6/26/2008 **Time:** 14:30:45 **Page:** 1
Co-ordinate(NE) Reference: Well: 921-27D2AS, True North
Vertical (TVD) Reference: SITE 4969.2
Section (VS) Reference: Well (0.00N,0.00E,293.02Azi)
Survey Calculation Method: Minimum Curvature **Db:** Sybase

Plan: Plan #1	Date Composed: 6/24/2008
	Version: 1
Principal: Yes	Tied-to: User Defined

Field: UNTAH CO., UT (STATE PLANE NAD 27)

Map System: US State Plane Coordinate System 1927
Geo Datum: NAD27 (Clarke 1866)
Sys Datum: Mean Sea Level

Map Zone: Utah, Central Zone
Coordinate System: Well Centre
Geomagnetic Model: bggm2007

Site: NBU 921-27D2AS, NBU 57N PAD
SEC.27-T9S-R21E
UINTAH CO., UT

Site Position:	Northing: 617646.87 ft	Latitude: 40 0 45.360 N
From: Geographic	East: 2548817.98 ft	Longitude: 109 32 25.519 W
Position Uncertainty:		North Reference: True
Ground Level:	0.00 ft	Grid Convergence: 1.26 deg
	4951.20 ft	

Well: 921-27D2AS **Slot Name:**

Well Position:	+N/S 0.00 ft	Northing: 617646.87 ft	Latitude: 40 0 45.360 N
	+E/W 0.00 ft	East: 2548817.98 ft	Longitude: 109 32 25.519 W
Position Uncertainty:	0.00 ft		

Wellpath: 1	Drilled From: Surface		
Current Datum: SITE	Tie-on Depth: 0.00 ft		
Magnetic Data: 6/24/2008	Above System Datum: Mean Sea Level		
Field Strength: 52658 nT	Declination: 11.50 deg		
Vertical Section: Depth From (TVD)	Mag Dip Angle: 65.94 deg		
ft	+N/S		
0.00	ft		
	Direction		
	deg		
0.00	0.00	0.00	293.02

Plan Section Information

MD ft	Incl deg	Azim deg	TVD ft	+N/S ft	+E/W ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2460.00	0.00	0.00	2460.00	0.00	0.00	0.00	0.00	0.00	0.00	
3458.94	29.97	293.02	3414.01	99.87	-235.00	3.00	3.00	0.00	0.00	
5488.97	29.97	293.02	5172.63	496.48	-1168.26	0.00	0.00	0.00	0.00	
6154.58	10.00	293.02	5795.00	584.99	-1376.56	3.00	-3.00	0.00	-180.00	
6487.91	0.00	0.00	6126.64	596.34	-1403.27	3.00	-3.00	20.09	180.00	
10261.26	0.00	0.00	9900.00	596.34	-1403.27	0.00	0.00	0.00	0.00	

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Comment
2000.00	0.00	0.00	2000.00	0.00	0.00	0.00	0.00	0.00	0.00	
2100.00	0.00	0.00	2100.00	0.00	0.00	0.00	0.00	0.00	0.00	
2200.00	0.00	0.00	2200.00	0.00	0.00	0.00	0.00	0.00	0.00	
2300.00	0.00	0.00	2300.00	0.00	0.00	0.00	0.00	0.00	0.00	
2400.00	0.00	0.00	2400.00	0.00	0.00	0.00	0.00	0.00	0.00	9 5/8" PLAN
2460.00	0.00	0.00	2460.00	0.00	0.00	0.00	0.00	0.00	0.00	KOP
2500.00	1.20	293.02	2500.00	0.16	-0.39	0.42	3.00	3.00	0.00	
2600.00	4.20	293.02	2599.87	2.01	-4.72	5.13	3.00	3.00	0.00	
2700.00	7.20	293.02	2699.37	5.89	-13.86	15.06	3.00	3.00	0.00	
2800.00	10.20	293.02	2798.21	11.81	-27.78	30.18	3.00	3.00	0.00	
2900.00	13.20	293.02	2896.12	19.74	-46.44	50.46	3.00	3.00	0.00	
3000.00	16.20	293.02	2992.83	29.66	-69.79	75.83	3.00	3.00	0.00	
3100.00	19.20	293.02	3088.09	41.55	-97.77	106.23	3.00	3.00	0.00	
3200.00	22.20	293.02	3181.62	55.37	-130.30	141.58	3.00	3.00	0.00	
3300.00	25.20	293.02	3273.18	71.09	-167.29	181.77	3.00	3.00	0.00	

Weatherford International Ltd.

WELL PLAN REPORT



Company: Anadarko-Kerr-McGee
Field: UNTAH CO., UT (STATE PLANE NAD 27)
Site: NBU 921-27D2AS, NBU 57N PAD
Well: 921-27D2AS
Wellpath: 1

Date: 6/26/2008 **Time:** 14:30:45 **Page:** 2
Co-ordinate(NE) Reference: Well: 921-27D2AS, True North
Vertical (TVD) Reference: SITE 4969.2
Section (VS) Reference: Well (0.00N,0.00E,293.02Azi)
Survey Calculation Method: Minimum Curvature **Db:** Sybase

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Comment
3400.00	28.20	293.02	3362.51	88.66	-208.64	226.69	3.00	3.00	0.00	
3458.94	29.97	293.02	3414.01	99.87	-235.00	255.34	3.00	3.00	0.00	HOLD
3500.00	29.97	293.02	3449.58	107.89	-253.88	275.85	0.00	0.00	0.00	
3600.00	29.97	293.02	3536.21	127.43	-299.85	325.80	0.00	0.00	0.00	
3700.00	29.97	293.02	3622.84	146.97	-345.82	375.76	0.00	0.00	0.00	
3800.00	29.97	293.02	3709.47	166.50	-391.80	425.71	0.00	0.00	0.00	
3900.00	29.97	293.02	3796.10	186.04	-437.77	475.66	0.00	0.00	0.00	
4000.00	29.97	293.02	3882.73	205.58	-483.74	525.61	0.00	0.00	0.00	
4100.00	29.97	293.02	3969.36	225.11	-529.71	575.56	0.00	0.00	0.00	
4200.00	29.97	293.02	4055.99	244.65	-575.69	625.52	0.00	0.00	0.00	
4300.00	29.97	293.02	4142.62	264.19	-621.66	675.47	0.00	0.00	0.00	
4400.00	29.97	293.02	4229.26	283.72	-667.63	725.42	0.00	0.00	0.00	
4500.00	29.97	293.02	4315.89	303.26	-713.61	775.37	0.00	0.00	0.00	
4600.00	29.97	293.02	4402.52	322.80	-759.58	825.32	0.00	0.00	0.00	
4700.00	29.97	293.02	4489.15	342.34	-805.55	875.27	0.00	0.00	0.00	
4800.00	29.97	293.02	4575.78	361.87	-851.52	925.23	0.00	0.00	0.00	
4900.00	29.97	293.02	4662.41	381.41	-897.50	975.18	0.00	0.00	0.00	
5000.00	29.97	293.02	4749.04	400.95	-943.47	1025.13	0.00	0.00	0.00	
5100.00	29.97	293.02	4835.67	420.48	-989.44	1075.08	0.00	0.00	0.00	
5200.00	29.97	293.02	4922.30	440.02	-1035.41	1125.03	0.00	0.00	0.00	
5220.43	29.97	293.02	4940.00	444.01	-1044.81	1135.24	0.00	0.00	0.00	WASATCH
5300.00	29.97	293.02	5008.93	459.56	-1081.39	1174.99	0.00	0.00	0.00	
5400.00	29.97	293.02	5095.56	479.10	-1127.36	1224.94	0.00	0.00	0.00	
5488.97	29.97	293.02	5172.63	496.48	-1168.26	1269.38	0.00	0.00	0.00	DROP
5500.00	29.64	293.02	5182.20	498.62	-1173.31	1274.86	3.00	-3.00	0.00	
5600.00	26.64	293.02	5270.38	517.06	-1216.70	1322.01	3.00	-3.00	0.00	
5700.00	23.64	293.02	5360.90	533.68	-1255.79	1364.49	3.00	-3.00	0.00	
5742.48	22.36	293.02	5400.00	540.17	-1271.07	1381.09	3.00	-3.00	0.00	D2AS TGT
5800.00	20.64	293.02	5453.51	548.41	-1290.47	1402.17	3.00	-3.00	0.00	
5900.00	17.64	293.02	5547.98	561.23	-1320.64	1434.95	3.00	-3.00	0.00	
6000.00	14.64	293.02	5644.03	572.10	-1346.22	1462.74	3.00	-3.00	0.00	
6100.00	11.64	293.02	5741.40	580.99	-1367.13	1485.46	3.00	-3.00	0.00	
6154.58	10.00	293.02	5795.00	584.99	-1376.56	1495.71	3.00	-3.00	0.00	ENTRY PT.
6200.00	8.64	293.02	5839.82	587.87	-1383.33	1503.06	3.00	-3.00	0.00	
6300.00	5.64	293.02	5939.04	592.73	-1394.76	1515.49	3.00	-3.00	0.00	
6400.00	2.64	293.02	6038.77	595.55	-1401.40	1522.70	3.00	-3.00	0.00	
6487.91	0.00	0.00	6126.64	596.34	-1403.27	1524.72	3.00	-3.00	0.00	HOLD
6500.00	0.00	0.00	6138.74	596.34	-1403.27	1524.72	0.00	0.00	0.00	
6600.00	0.00	0.00	6238.74	596.34	-1403.27	1524.72	0.00	0.00	0.00	
6700.00	0.00	0.00	6338.74	596.34	-1403.27	1524.72	0.00	0.00	0.00	
6800.00	0.00	0.00	6438.74	596.34	-1403.27	1524.72	0.00	0.00	0.00	
6900.00	0.00	0.00	6538.74	596.34	-1403.27	1524.72	0.00	0.00	0.00	
7000.00	0.00	0.00	6638.74	596.34	-1403.27	1524.72	0.00	0.00	0.00	
7100.00	0.00	0.00	6738.74	596.34	-1403.27	1524.72	0.00	0.00	0.00	
7200.00	0.00	0.00	6838.74	596.34	-1403.27	1524.72	0.00	0.00	0.00	
7300.00	0.00	0.00	6938.74	596.34	-1403.27	1524.72	0.00	0.00	0.00	
7400.00	0.00	0.00	7038.74	596.34	-1403.27	1524.72	0.00	0.00	0.00	
7500.00	0.00	0.00	7138.74	596.34	-1403.27	1524.72	0.00	0.00	0.00	
7600.00	0.00	0.00	7238.74	596.34	-1403.27	1524.72	0.00	0.00	0.00	
7700.00	0.00	0.00	7338.74	596.34	-1403.27	1524.72	0.00	0.00	0.00	
7800.00	0.00	0.00	7438.74	596.34	-1403.27	1524.72	0.00	0.00	0.00	
7900.00	0.00	0.00	7538.74	596.34	-1403.27	1524.72	0.00	0.00	0.00	



Weatherford International Ltd.

WELL PLAN REPORT



Company: Anadarko-Kerr-McGee
Field: UNTAH CO., UT (STATE PLANE NAD 27)
Site: NBU 921-27D2AS, NBU 57N PAD
Well: 921-27D2AS
Wellpath: 1

Date: 6/26/2008 **Time:** 14:30:45 **Page:** 3
Co-ordinate(NE) Reference: Well: 921-27D2AS, True North
Vertical (TVD) Reference: SITE 4969.2
Section (VS) Reference: Well (0.00N,0.00E,293.02Azi)
Survey Calculation Method: Minimum Curvature **Db:** Sybase

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Comment
8000.00	0.00	0.00	7638.74	596.34	-1403.27	1524.72	0.00	0.00	0.00	
8100.00	0.00	0.00	7738.74	596.34	-1403.27	1524.72	0.00	0.00	0.00	
8195.26	0.00	0.00	7834.00	596.34	-1403.27	1524.72	0.00	0.00	0.00	MESAVERDE
8200.00	0.00	0.00	7838.74	596.34	-1403.27	1524.72	0.00	0.00	0.00	
8300.00	0.00	0.00	7938.74	596.34	-1403.27	1524.72	0.00	0.00	0.00	
8400.00	0.00	0.00	8038.74	596.34	-1403.27	1524.72	0.00	0.00	0.00	
8500.00	0.00	0.00	8138.74	596.34	-1403.27	1524.72	0.00	0.00	0.00	
8600.00	0.00	0.00	8238.74	596.34	-1403.27	1524.72	0.00	0.00	0.00	
8700.00	0.00	0.00	8338.74	596.34	-1403.27	1524.72	0.00	0.00	0.00	
8800.00	0.00	0.00	8438.74	596.34	-1403.27	1524.72	0.00	0.00	0.00	
8900.00	0.00	0.00	8538.74	596.34	-1403.27	1524.72	0.00	0.00	0.00	
9000.00	0.00	0.00	8638.74	596.34	-1403.27	1524.72	0.00	0.00	0.00	
9100.00	0.00	0.00	8738.74	596.34	-1403.27	1524.72	0.00	0.00	0.00	
9200.00	0.00	0.00	8838.74	596.34	-1403.27	1524.72	0.00	0.00	0.00	
9300.00	0.00	0.00	8938.74	596.34	-1403.27	1524.72	0.00	0.00	0.00	
9400.00	0.00	0.00	9038.74	596.34	-1403.27	1524.72	0.00	0.00	0.00	
9500.00	0.00	0.00	9138.74	596.34	-1403.27	1524.72	0.00	0.00	0.00	
9600.00	0.00	0.00	9238.74	596.34	-1403.27	1524.72	0.00	0.00	0.00	
9700.00	0.00	0.00	9338.74	596.34	-1403.27	1524.72	0.00	0.00	0.00	
9800.00	0.00	0.00	9438.74	596.34	-1403.27	1524.72	0.00	0.00	0.00	
9900.00	0.00	0.00	9538.74	596.34	-1403.27	1524.72	0.00	0.00	0.00	
10000.00	0.00	0.00	9638.74	596.34	-1403.27	1524.72	0.00	0.00	0.00	
10100.00	0.00	0.00	9738.74	596.34	-1403.27	1524.72	0.00	0.00	0.00	
10200.00	0.00	0.00	9838.74	596.34	-1403.27	1524.72	0.00	0.00	0.00	
10261.26	0.00	0.00	9900.00	596.34	-1403.27	1524.72	0.00	0.00	0.00	PBHL

Targets

Name	Description	TVD	+N/S	+E/W	Map Northing	Map Easting	<---- Latitude ---->	<---- Longitude ---->
Dip.	Dir.	ft	ft	ft	ft	ft	Deg Min Sec	Deg Min Sec
D2AS TGT -Circle (Radius: 25) -Plan out by 139.62 at		5400.00	594.77	-1399.57	618210.842547405.72	40	0 51.238 N	109 32 43.508 W
		5400.00	540.17	-1271.07	618159.062547535.38	40	0 50.698 N	109 32 41.856 W

Casing Points

MD ft	TVD ft	Diameter in	Hole Size in	Name
2400.00	2400.00	9.625	12.250	9 5/8" PLAN

Annotation

MD ft	TVD ft	
2460.00	2460.00	KOP
3458.94	3414.01	HOLD
5488.97	5172.63	DROP
6154.58	5795.00	ENTRY PT.
6487.91	6126.65	HOLD
10261.26	9900.00	PBHL



Weatherford International Ltd.

WELL PLAN REPORT



Company: Anadarko-Kerr-McGee
Field: UNTAH CO., UT (STATE PLANE NAD 27)
Site: NBU 921-27D2AS, NBU 57N PAD
Well: 921-27D2AS
Wellpath: 1

Date: 6/26/2008 Time: 14:30:45 Page: 4
Co-ordinate(NE) Reference: Well: 921-27D2AS, True North
Vertical (TVD) Reference: SITE 4969.2
Section (VS) Reference: Well (0.00N,0.00E,293.02Azi)
Survey Calculation Method: Minimum Curvature Db: Sybase

Formations

MD ft	TVD ft	Formations	Lithology	Dip Angle deg	Dip Direction deg
1604.00	1604.00	GREEN RIVER		0.00	0.00
5220.43	4940.00	WASATCH		0.00	0.00
8195.26	7834.00	MESAVERDE		0.00	0.00

Company: Anadarko-Kerr-McGee
Field: UNTAH CO., UT (STATE PLANE NAD 27)
Reference Site: NBU 921-27D2AS, NBU 57N PAD
Reference Well: 921-27D2AS
Reference Wellpath:

Date: 6/26/2008 **Time:** 14:32:04 **Page:** 1
Co-ordinate(NE) Reference: Well: 921-27D2AS, True North
Vertical (TVD) Reference: SITE 4969.2
Db: Sybase

NO GLOBAL SCAN: Using user defined selection & scan criteria
Interpolation Method: MD + Stations **Interval:** 100.00 ft
Depth Range: 2400.00 to 25000.00 ft
Maximum Radius: 0000.00 ft

Reference: Plan: Plan #1
Error Model: ISCWSA Ellipse
Scan Method: Closest Approach 3D
Error Surface: Ellipse

Plan: Plan #1
Principal: Yes

Date Composed: 6/24/2008
Version: 1
Tied-to: User Defined

Summary

<----- Offset Wellpath ----->			Reference	Offset	Ctr-Ctr	Edge	Separation	
Site	Well	Wellpath	MD	MD	Distance	Distance	Factor	Warning
NBU 921-27C2AS, NE	921-27C2AS	1 V0 Plan: Plan #1 V1	2460.00	2460.00	19.39	9.33	1.93	
NBU 921-27C2D (VERT)	921-27C2D (VERT)	1 V0 Plan: Plan #1 V1	2700.00	2699.37	16.42	5.61	1.52	
NBU 921-27D2S, NE	921-27D2S	1 V0 Plan: Plan #1 V1	2500.00	2499.37	40.60	30.43	3.99	

Site: NBU 921-27C2AS, NBU 57N PAD
Well: 921-27C2AS
Wellpath: 1 V0 Plan: Plan #1 V1

Inter-Site Error: 0.00 ft

Reference	Offset		Semi-Major Axis			Offset	Location	Ctr-Ctr	Edge	Separation	
MD	TVD	MD	TVD	Ref	Offset	TFO-HS	North	East	Distance	Distance	Factor
2400.00	2400.00	2400.00	2400.00	4.90	4.90	61.99	9.11	17.12	19.39	9.58	1.98
2460.00	2460.00	2460.00	2460.00	5.03	5.03	61.99	9.11	17.12	19.39	9.33	1.93
2500.00	2500.00	2499.90	2499.90	5.09	5.11	129.15	9.38	17.09	19.75	9.56	1.94
2600.00	2599.87	2599.54	2599.48	5.17	5.32	130.83	12.48	16.74	23.89	13.40	2.28
2700.00	2699.37	2698.83	2698.56	5.28	5.53	132.94	19.00	16.02	32.64	21.86	3.03
2800.00	2798.21	2797.54	2796.76	5.40	5.74	134.54	28.85	14.92	46.00	34.92	4.15
2900.00	2896.12	2895.78	2894.21	5.56	5.97	136.24	41.21	13.55	63.75	52.34	5.59
3000.00	2992.83	2993.30	2990.92	5.77	6.20	139.28	53.65	12.17	85.42	73.67	7.27
3100.00	3088.09	3089.68	3086.50	6.05	6.43	142.58	65.94	10.80	111.29	99.19	9.20
3200.00	3181.62	3184.66	3180.70	6.42	6.66	145.65	78.06	9.46	141.59	129.12	11.36
3300.00	3273.18	3277.99	3273.26	6.90	6.90	148.34	89.96	8.14	176.44	163.58	13.73
3400.00	3362.51	3369.41	3363.92	7.50	7.14	150.63	101.62	6.84	215.87	202.61	16.28
3458.94	3414.01	3422.29	3416.36	7.91	7.27	151.81	108.37	6.09	241.25	227.74	17.86
3500.00	3449.58	3458.85	3452.63	8.22	7.37	152.80	113.03	5.57	259.52	245.80	18.91
3600.00	3536.21	3547.91	3540.95	9.01	7.61	154.71	124.39	4.31	304.22	289.95	21.32
3700.00	3622.84	3636.97	3629.27	9.85	7.85	156.14	135.75	3.05	349.11	334.28	23.53
3800.00	3709.47	3726.03	3717.59	10.72	8.09	157.24	147.11	1.79	394.15	378.72	25.55
3900.00	3796.10	3815.08	3805.91	11.62	8.33	158.12	158.47	0.53	439.27	423.24	27.40
4000.00	3882.73	3904.14	3894.23	12.54	8.58	158.83	169.83	-0.73	484.47	467.82	29.10
4100.00	3969.36	3993.20	3982.55	13.48	8.83	159.43	181.19	-2.00	529.71	512.43	30.65
4200.00	4055.99	4082.26	4070.87	14.44	9.08	159.93	192.55	-3.26	574.99	557.07	32.09
4300.00	4142.62	4171.31	4159.19	15.40	9.34	160.35	203.91	-4.52	620.30	601.73	33.40
4400.00	4229.26	4260.37	4247.51	16.37	9.59	160.72	215.27	-5.78	665.63	646.41	34.62
4500.00	4315.89	4349.43	4335.83	17.36	9.85	161.04	226.63	-7.04	710.99	691.09	35.74
4600.00	4402.52	4438.48	4424.16	18.34	10.10	161.33	237.99	-8.30	756.36	735.79	36.78
4700.00	4489.15	4527.54	4512.48	19.34	10.36	161.58	249.35	-9.57	801.74	780.50	37.75
4800.00	4575.78	4616.60	4600.80	20.33	10.62	161.80	260.71	-10.83	847.13	825.21	38.64
4900.00	4662.41	4705.66	4689.12	21.34	10.88	162.01	272.07	-12.09	892.53	869.93	39.48
5000.00	4749.04	4794.71	4777.44	22.34	11.15	162.19	283.43	-13.35	937.94	914.65	40.26
5100.00	4835.67	4883.77	4865.76	23.35	11.41	162.35	294.79	-14.61	983.36	959.37	40.99
5200.00	4922.30	4972.83	4954.08	24.36	11.67	162.50	306.15	-15.87	1028.78	1004.10	41.67
5300.00	5008.93	5061.04	5041.56	25.37	11.92	162.64	317.39	-17.12	1074.22	1048.85	42.35
5400.00	5095.56	5142.25	5122.27	26.39	11.90	162.84	326.35	-18.12	1120.03	1094.25	43.45
5488.97	5172.63	5213.82	5193.58	27.29	11.82	163.10	332.36	-18.78	1161.32	1135.27	44.58
5500.00	5182.20	5222.66	5202.40	27.39	11.81	163.19	332.98	-18.85	1166.45	1140.38	44.75
5600.00	5270.38	5303.46	5283.07	28.08	11.69	163.96	337.39	-19.34	1210.83	1184.77	46.45



Weatherford International Ltd.

Anticollision Report



Company:	Anadarko-Kerr-McGee	Date:	6/26/2008	Time:	14:32:04	Page:	2
Field:	UINTAH CO., UT (STATE PLANE NAD 27)						
Reference Site:	NBU 921-27D2AS, NBU 57N PAD						
Reference Well:	921-27D2AS						
Reference Wellpath:							

Site: NBU 921-27C2AS, NBU 57N PAD
Well: 921-27C2AS
Wellpath: 1 V0 Plan: Plan #1 V1

Inter-Site Error: -0.00 ft

Db: Sybase

Reference MD ft	Offset TVD ft	Semi-Major Axis Ref MD ft	Offset TVD ft	TFO-HS deg	Offset Location North ft	East ft	Ctr-Ctr Edge Distance ft	Separation Distance ft	Factor	Warning
5700.00	5360.90	5385.35	5364.93	28.70	11.56	164.69	339.55	-19.58	1251.37	1225.37
5800.00	5453.51	5473.93	5453.51	29.24	11.50	165.40	339.76	-19.61	1287.88	1261.94
5900.00	5547.98	5568.39	5547.98	29.69	11.63	166.00	339.76	-19.61	1319.75	1293.73
6000.00	5644.03	5664.44	5644.03	30.07	11.80	166.49	339.76	-19.61	1346.80	1320.68
6100.00	5741.40	5761.81	5741.40	30.36	11.97	166.87	339.76	-19.61	1368.95	1342.76
6154.58	5795.00	5815.42	5795.00	30.48	12.07	167.03	339.76	-19.61	1378.94	1352.73
6200.00	5839.82	5860.24	5839.82	30.57	12.15	167.15	339.76	-19.61	1386.11	1359.90
6300.00	5939.04	5959.46	5939.04	30.71	12.33	167.34	339.76	-19.61	1398.23	1372.04
6400.00	6038.77	6059.18	6038.77	30.76	12.51	167.45	339.76	-19.61	1405.27	1379.13
6487.91	6126.64	6147.06	6126.64	30.75	12.67	100.51	339.76	-19.61	1407.25	1381.19
6500.00	6138.74	6159.15	6138.74	30.75	12.70	100.51	339.76	-19.61	1407.25	1381.17
6600.00	6238.74	6259.15	6238.74	30.80	12.88	100.51	339.76	-19.61	1407.25	1380.88
6700.00	6338.74	6359.15	6338.74	30.85	13.07	100.51	339.76	-19.61	1407.25	1380.59
6800.00	6438.74	6459.15	6438.74	30.90	13.25	100.51	339.76	-19.61	1407.25	1380.29
6900.00	6538.74	6559.15	6538.74	30.95	13.44	100.51	339.76	-19.61	1407.25	1379.99
7000.00	6638.74	6659.15	6638.74	31.00	13.62	100.51	339.76	-19.61	1407.25	1379.69
7100.00	6738.74	6759.15	6738.74	31.05	13.81	100.51	339.76	-19.61	1407.25	1379.39
7200.00	6838.74	6859.15	6838.74	31.10	14.00	100.51	339.76	-19.61	1407.25	1379.08
7300.00	6938.74	6959.15	6938.74	31.16	14.19	100.51	339.76	-19.61	1407.25	1378.77
7400.00	7038.74	7059.15	7038.74	31.22	14.38	100.51	339.76	-19.61	1407.25	1378.46
7500.00	7138.74	7159.15	7138.74	31.27	14.57	100.51	339.76	-19.61	1407.25	1378.15
7600.00	7238.74	7259.15	7238.74	31.33	14.76	100.51	339.76	-19.61	1407.25	1377.83
7700.00	7338.74	7359.15	7338.74	31.39	14.95	100.51	339.76	-19.61	1407.25	1377.51
7800.00	7438.74	7459.15	7438.74	31.46	15.14	100.51	339.76	-19.61	1407.25	1377.19
7900.00	7538.74	7559.15	7538.74	31.52	15.33	100.51	339.76	-19.61	1407.25	1376.87
8000.00	7638.74	7659.15	7638.74	31.58	15.53	100.51	339.76	-19.61	1407.25	1376.54
8100.00	7738.74	7759.15	7738.74	31.65	15.72	100.51	339.76	-19.61	1407.25	1376.21
8200.00	7838.74	7859.15	7838.74	31.72	15.91	100.51	339.76	-19.61	1407.25	1375.88
8300.00	7938.74	7959.15	7938.74	31.78	16.11	100.51	339.76	-19.61	1407.25	1375.55
8400.00	8038.74	8059.15	8038.74	31.85	16.30	100.51	339.76	-19.61	1407.25	1375.22
8500.00	8138.74	8159.15	8138.74	31.92	16.49	100.51	339.76	-19.61	1407.25	1374.88
8600.00	8238.74	8259.15	8238.74	32.00	16.69	100.51	339.76	-19.61	1407.25	1374.54
8700.00	8338.74	8359.15	8338.74	32.07	16.88	100.51	339.76	-19.61	1407.25	1374.20
8800.00	8438.74	8459.15	8438.74	32.14	17.08	100.51	339.76	-19.61	1407.25	1373.86
8900.00	8538.74	8559.15	8538.74	32.22	17.28	100.51	339.76	-19.61	1407.25	1373.52
9000.00	8638.74	8659.15	8638.74	32.30	17.47	100.51	339.76	-19.61	1407.25	1373.18
9100.00	8738.74	8759.15	8738.74	32.37	17.67	100.51	339.76	-19.61	1407.25	1372.83
9200.00	8838.74	8859.15	8838.74	32.45	17.86	100.51	339.76	-19.61	1407.25	1372.48
9300.00	8938.74	8959.15	8938.74	32.53	18.06	100.51	339.76	-19.61	1407.25	1372.13
9400.00	9038.74	9059.15	9038.74	32.61	18.26	100.51	339.76	-19.61	1407.25	1371.78
9500.00	9138.74	9159.15	9138.74	32.70	18.46	100.51	339.76	-19.61	1407.25	1371.43
9600.00	9238.74	9259.15	9238.74	32.78	18.65	100.51	339.76	-19.61	1407.25	1371.08
9700.00	9338.74	9359.15	9338.74	32.86	18.85	100.51	339.76	-19.61	1407.25	1370.72
9800.00	9438.74	9459.15	9438.74	32.95	19.05	100.51	339.76	-19.61	1407.25	1370.37
9900.00	9538.74	9559.15	9538.74	33.04	19.25	100.51	339.76	-19.61	1407.25	1370.01
10000.00	9638.74	9659.15	9638.74	33.13	19.45	100.51	339.76	-19.61	1407.25	1369.65
10100.00	9738.74	9759.15	9738.74	33.21	19.65	100.51	339.76	-19.61	1407.25	1369.29
10200.00	9838.74	9859.15	9838.74	33.30	19.85	100.51	339.76	-19.61	1407.25	1368.93
10261.26	9900.00	9920.42	9900.00	33.36	19.97	100.51	339.76	-19.61	1407.25	1368.71

Weatherford International Ltd.

Anticollision Report

Company:	Anadarko-Kerr-McGee	Date:	6/26/2008	Time:	14:32:04	Page:	3
Field:	UINTAH CO., UT (STATE PLANE NAD 27)						
Reference Site:	NBU 921-27D2AS, NBU 57N PAD						
Reference Well:	921-27D2AS						
Reference Wellpath#:							

Site: NBU 921-27C2D (VERT), NBU 57N PAD
 Well: 921-27C2D (VERT)
 Wellpath: 1 V0 Plan: Plan #1 V1

Co-ordinate(NE) Reference: Well: 921-27D2AS, True North
 Vertical (TVD) Reference: SITE 4969.2

Db: Sybase

Inter-Site Error: 0.00 ft

Reference MD	Offset TVD	Semi-Major Axis	Offset Location	Ctr-Ctr Edge	Separation	
MD ft	ft	Ref ft	North ft	Distance ft	Factor	Warning
2400.00	2400.00	2400.00	2400.00	4.90	4.90 239.05	-10.22 -17.04 19.87 10.06 2.03
2460.00	2460.00	2460.00	2460.00	5.03	5.03 239.05	-10.22 -17.04 19.87 9.81 1.98
2500.00	2500.00	2500.00	2500.00	5.09	5.11 305.03	-10.22 -17.04 19.63 9.43 1.92
2600.00	2599.87	2599.87	2599.87	5.17	5.32 292.14	-10.22 -17.04 17.36 6.86 1.65
2700.00	2699.37	2699.37	2699.37	5.28	5.53 258.23	-10.22 -17.04 16.42 5.61 1.52
2800.00	2798.21	2798.21	2798.21	5.40	5.74 221.43	-10.22 -17.04 24.50 13.41 2.21
2900.00	2896.12	2896.12	2896.12	5.56	5.94 203.06	-10.22 -17.04 41.97 30.62 3.70
3000.00	2992.83	2992.83	2992.83	5.77	6.14 194.62	-10.22 -17.04 66.13 54.52 5.70
3100.00	3088.09	3088.09	3088.09	6.05	6.34 190.20	-10.22 -17.04 95.90 84.04 8.08
3200.00	3181.62	3181.62	3181.62	6.42	6.54 187.61	-10.22 -17.04 130.88 118.75 10.79
3300.00	3273.18	3273.18	3273.18	6.90	6.73 185.96	-10.22 -17.04 170.84 158.45 13.78
3400.00	3362.51	3362.51	3362.51	7.50	6.92 184.85	-10.22 -17.04 215.61 202.94 17.02
3458.94	3414.01	3414.01	3414.01	7.91	7.03 184.35	-10.22 -17.04 244.19 231.35 19.03
3500.00	3449.58	3449.58	3449.58	8.22	7.10 184.02	-10.22 -17.04 264.66 251.65 20.35
3600.00	3536.21	3536.21	3536.21	9.01	7.28 183.38	-10.22 -17.04 314.53 301.09 23.40
3700.00	3622.84	3622.84	3622.84	9.85	7.46 182.92	-10.22 -17.04 364.43 350.53 26.22
3800.00	3709.47	3709.47	3709.47	10.72	7.65 182.57	-10.22 -17.04 414.34 399.97 28.85
3900.00	3796.10	3796.10	3796.10	11.62	7.83 182.29	-10.22 -17.04 464.25 449.41 31.28
4000.00	3882.73	3882.73	3882.73	12.54	8.01 182.07	-10.22 -17.04 514.18 498.85 33.54
4100.00	3969.36	3969.36	3969.36	13.48	8.19 181.88	-10.22 -17.04 564.11 548.28 35.64
4200.00	4055.99	4055.99	4055.99	14.44	8.37 181.73	-10.22 -17.04 614.04 597.71 37.59
4300.00	4142.62	4142.62	4142.62	15.40	8.55 181.60	-10.22 -17.04 663.98 647.13 39.41
4400.00	4229.26	4229.26	4229.26	16.37	8.73 181.49	-10.22 -17.04 713.92 696.55 41.10
4500.00	4315.89	4315.89	4315.89	17.36	8.92 181.39	-10.22 -17.04 763.86 745.96 42.68
4600.00	4402.52	4402.52	4402.52	18.34	9.10 181.31	-10.22 -17.04 813.80 795.37 44.16
4700.00	4489.15	4489.15	4489.15	19.34	9.28 181.23	-10.22 -17.04 863.74 844.78 45.55
4800.00	4575.78	4575.78	4575.78	20.33	9.46 181.16	-10.22 -17.04 913.68 894.18 46.85
4900.00	4662.41	4662.41	4662.41	21.34	9.64 181.10	-10.22 -17.04 963.63 943.58 48.07
5000.00	4749.04	4749.04	4749.04	22.34	9.82 181.05	-10.22 -17.04 1013.57 992.98 49.22
5100.00	4835.67	4835.67	4835.67	23.35	10.00 181.00	-10.22 -17.04 1063.52 1042.38 50.31
5200.00	4922.30	4922.30	4922.30	24.36	10.19 180.95	-10.22 -17.04 1113.47 1091.77 51.33
5300.00	5008.93	5008.93	5008.93	25.37	10.37 180.91	-10.22 -17.04 1163.41 1141.17 52.30
5400.00	5095.56	5095.56	5095.56	26.39	10.55 180.88	-10.22 -17.04 1213.36 1190.56 53.21
5488.97	5172.63	5172.63	5172.63	27.29	10.71 180.84	-10.22 -17.04 1257.80 1234.50 53.98
5500.00	5182.20	5182.20	5182.20	27.39	10.73 180.84	-10.22 -17.04 1263.28 1239.92 54.09
5600.00	5270.38	5270.38	5270.38	28.08	10.91 180.79	-10.22 -17.04 1310.43 1286.70 55.24
5700.00	5360.90	5360.90	5360.90	28.70	11.10 180.74	-10.22 -17.04 1352.90 1328.85 56.26
5800.00	5453.51	5453.51	5453.51	29.24	11.30 180.71	-10.22 -17.04 1390.58 1366.26 57.18
5900.00	5547.98	5547.98	5547.98	29.69	11.50 180.68	-10.22 -17.04 1423.35 1398.81 58.00
6000.00	5644.03	5644.03	5644.03	30.07	11.70 180.66	-10.22 -17.04 1451.14 1426.43 58.73
6100.00	5741.40	5741.40	5741.40	30.36	11.90 180.64	-10.22 -17.04 1473.87 1449.04 59.38
6154.58	5795.00	5795.00	5795.00	30.48	12.01 180.63	-10.22 -17.04 1484.11 1459.25 59.70
6200.00	5839.82	5839.82	5839.82	30.57	12.11 180.63	-10.22 -17.04 1491.46 1466.58 59.95
6300.00	5939.04	5939.04	5939.04	30.71	12.32 180.62	-10.22 -17.04 1503.89 1479.01 60.45
6400.00	6038.77	6038.77	6038.77	30.76	12.52 180.61	-10.22 -17.04 1511.10 1486.28 60.88
6487.91	6126.64	6126.64	6126.64	30.75	12.71 113.63	-10.22 -17.04 1513.12 1488.41 61.22
6500.00	6138.74	6138.74	6138.74	30.75	12.73 113.63	-10.22 -17.04 1513.12 1488.38 61.16
6600.00	6238.74	6238.74	6238.74	30.80	12.94 113.63	-10.22 -17.04 1513.12 1488.06 60.37
6700.00	6338.74	6338.74	6338.74	30.85	13.15 113.63	-10.22 -17.04 1513.12 1487.73 59.60
6800.00	6438.74	6438.74	6438.74	30.90	13.36 113.63	-10.22 -17.04 1513.12 1487.40 58.83
6900.00	6538.74	6538.74	6538.74	30.95	13.57 113.63	-10.22 -17.04 1513.12 1487.07 58.09



Weatherford International Ltd.

Anticollision Report



Company: Anadarko-Kerr-McGee
Field: UNTAH CO., UT (STATE PLANE NAD 27)
Reference Site: NBU 921-27D2AS, NBU 57N PAD
Reference Well: 921-27D2AS
Reference Wellpath:

Date: 6/26/2008

Time: 14:32:04

Page: 4

Co-ordinate(NE) Reference: Well: 921-27D2AS, True North
Vertical (TVD) Reference: SITE 4969.2

Db: Sybase

Site: NBU 921-27C2D (VERT), NBU 57N PAD
Well: 921-27C2D (VERT)

Wellpath: 1 V0 Plan: Plan #1 V1

Inter-Site Error: 0.00 ft

Reference MD	Offset MD	Semi-Major Axis	Offset Location	Ctr-Ctr Edge	Separation	Warning					
MD ft	TVD ft	Ref ft	Offset ft	TFO-HS deg	North ft	East ft	Distance ft	Distance ft	Factor		
7000.00	6638.74	6638.74	6638.74	31.00	13.78	113.63	-10.22	-17.04	1513.12	1486.74	57.35
7100.00	6738.74	6738.74	6738.74	31.05	13.99	113.63	-10.22	-17.04	1513.12	1486.40	56.63
7200.00	6838.74	6838.74	6838.74	31.10	14.20	113.63	-10.22	-17.04	1513.12	1486.07	55.93
7300.00	6938.74	6938.74	6938.74	31.16	14.41	113.63	-10.22	-17.04	1513.12	1485.73	55.23
7400.00	7038.74	7038.74	7038.74	31.22	14.62	113.63	-10.22	-17.04	1513.12	1485.39	54.55
7500.00	7138.74	7138.74	7138.74	31.27	14.83	113.63	-10.22	-17.04	1513.12	1485.04	53.88
7600.00	7238.74	7238.74	7238.74	31.33	15.04	113.63	-10.22	-17.04	1513.12	1484.70	53.23
7700.00	7338.74	7338.74	7338.74	31.39	15.25	113.63	-10.22	-17.04	1513.12	1484.35	52.59
7800.00	7438.74	7438.74	7438.74	31.46	15.46	113.63	-10.22	-17.04	1513.12	1484.00	51.96
7900.00	7538.74	7538.74	7538.74	31.52	15.67	113.63	-10.22	-17.04	1513.12	1483.65	51.34
8000.00	7638.74	7638.74	7638.74	31.58	15.87	113.63	-10.22	-17.04	1513.12	1483.29	50.73
8100.00	7738.74	7738.74	7738.74	31.65	16.08	113.63	-10.22	-17.04	1513.12	1482.94	50.13
8200.00	7838.74	7838.74	7838.74	31.72	16.29	113.63	-10.22	-17.04	1513.12	1482.58	49.55
8300.00	7938.74	7938.74	7938.74	31.78	16.50	113.63	-10.22	-17.04	1513.12	1482.23	48.98
8400.00	8038.74	8038.74	8038.74	31.85	16.71	113.63	-10.22	-17.04	1513.12	1481.87	48.41
8500.00	8138.74	8138.74	8138.74	31.92	16.92	113.63	-10.22	-17.04	1513.12	1481.51	47.86
8600.00	8238.74	8238.74	8238.74	32.00	17.13	113.63	-10.22	-17.04	1513.12	1481.14	47.32
8700.00	8338.74	8338.74	8338.74	32.07	17.34	113.63	-10.22	-17.04	1513.12	1480.78	46.79
8800.00	8438.74	8438.74	8438.74	32.14	17.55	113.63	-10.22	-17.04	1513.12	1480.42	46.26
8900.00	8538.74	8538.74	8538.74	32.22	17.76	113.63	-10.22	-17.04	1513.12	1480.05	45.75
9000.00	8638.74	8638.74	8638.74	32.30	17.97	113.63	-10.22	-17.04	1513.12	1479.68	45.25
9100.00	8738.74	8738.74	8738.74	32.37	18.18	113.63	-10.22	-17.04	1513.12	1479.31	44.76
9200.00	8838.74	8838.74	8838.74	32.45	18.39	113.63	-10.22	-17.04	1513.12	1478.94	44.27
9300.00	8938.74	8938.74	8938.74	32.53	18.60	113.63	-10.22	-17.04	1513.12	1478.57	43.80
9400.00	9038.74	9038.74	9038.74	32.61	18.81	113.63	-10.22	-17.04	1513.12	1478.20	43.33
9500.00	9138.74	9138.74	9138.74	32.70	19.02	113.63	-10.22	-17.04	1513.12	1477.83	42.87
9600.00	9238.74	9238.74	9238.74	32.78	19.23	113.63	-10.22	-17.04	1513.12	1477.45	42.42
9700.00	9338.74	9338.74	9338.74	32.86	19.44	113.63	-10.22	-17.04	1513.12	1477.08	41.98
9800.00	9438.74	9438.74	9438.74	32.95	19.64	113.63	-10.22	-17.04	1513.12	1476.70	41.55
9900.00	9538.74	9538.74	9538.74	33.04	19.85	113.63	-10.22	-17.04	1513.12	1476.33	41.12
10000.00	9638.74	9638.74	9638.74	33.13	20.06	113.63	-10.22	-17.04	1513.12	1475.95	40.70
10100.00	9738.74	9738.74	9738.74	33.21	20.27	113.63	-10.22	-17.04	1513.12	1475.57	40.29
10200.00	9838.74	9838.74	9838.74	33.30	20.48	113.63	-10.22	-17.04	1513.12	1475.19	39.89
10261.26	9900.00	9900.00	9900.00	33.36	20.61	113.63	-10.22	-17.04	1513.12	1474.96	39.65

Site: NBU 921-27D2DS, NBU 57N PAD

Well: 921-27D2DS

Wellpath: 1 V0 Plan: Plan #1 V1

Inter-Site Error: 0.00 ft

Reference MD	Offset MD	Semi-Major Axis	Offset Location	Ctr-Ctr Edge	Separation	Warning					
MD ft	TVD ft	Ref ft	Offset ft	TFO-HS deg	North ft	East ft	Distance ft	Distance ft	Factor		
2400.00	2400.00	2400.00	2400.00	4.90	4.90	239.73	-20.44	-35.01	40.54	30.73	4.13
2460.00	2460.00	2460.00	2460.00	5.03	5.03	239.73	-20.44	-35.01	40.54	30.48	4.03
2500.00	2500.00	2499.37	2499.37	5.09	5.08	306.62	-20.36	-35.41	40.60	30.43	3.99
2600.00	2599.87	2597.80	2597.68	5.17	5.13	305.67	-19.47	-39.89	41.26	30.98	4.01
2700.00	2699.37	2696.21	2695.61	5.28	5.19	303.77	-17.60	-49.32	42.70	32.28	4.10
2800.00	2798.21	2794.60	2792.89	5.40	5.27	301.13	-14.75	-63.69	44.98	34.39	4.25
2900.00	2896.12	2892.93	2889.24	5.56	5.39	298.00	-10.93	-82.94	48.17	37.36	4.45
3000.00	2992.83	2991.22	2984.40	5.77	5.56	294.64	-6.16	-107.01	52.34	41.21	4.70
3100.00	3088.09	3089.44	3078.11	6.05	5.80	291.28	-0.45	-135.84	57.55	45.95	4.96
3200.00	3181.62	3187.59	3170.12	6.42	6.14	288.11	6.19	-169.32	63.83	51.57	5.21
3300.00	3273.18	3285.66	3260.18	6.90	6.58	285.21	13.74	-207.37	71.17	58.03	5.42



Weatherford International Ltd.

Anticollision Report



Weatherford

Company:	Anadarko-Kerr-McGee	Date:	6/26/2008	Time:	14:32:04	Page:	5
Field:	UINTAH CO., UT (STATE PLANE NAD 27)						
Reference Site:	NBU 921-27D2AS, NBU 57N PAD						
Reference Well:	921-27D2AS						
Reference Wellpath:							

Site: NBU 921-27D2DS, NBU 57N PAD
Well: 921-27D2DS

Wellpath: 1 V0 Plan: Plan #1 V1

Inter-Site Error: 0.00 ft

Reference MD ft	Offset TVD ft	Semi-Major Axis Offset ft	Offset TFO-HS deg	Location North ft	Location East ft	Ctr-Ctr Distance ft	Edge Distance ft	Separation Factor	Warning
3400.00	3362.51	3383.65	3348.06	7.50	7.14	282.64	22.16	-249.86	79.56 65.29 5.57
3458.94	3414.01	3441.35	3398.74	7.91	7.53	281.28	27.53	-276.93	84.99 69.92 5.64
3500.00	3449.58	3481.93	3433.94	8.22	7.83	280.46	31.46	-296.73	89.01 73.34 5.68
3600.00	3536.21	3581.41	3520.14	9.01	8.61	278.83	41.11	-345.42	98.92 81.67 5.73
3700.00	3622.84	3680.88	3606.35	9.85	9.44	277.50	50.77	-394.11	108.89 89.97 5.75
3800.00	3709.47	3780.35	3692.55	10.72	10.30	276.39	60.42	-442.80	118.92 98.24 5.75
3900.00	3796.10	3879.82	3778.75	11.62	11.20	275.46	70.07	-491.48	128.97 106.50 5.74
4000.00	3882.73	3979.30	3864.96	12.54	12.11	274.66	79.73	-540.17	139.06 114.74 5.72
4100.00	3969.36	4078.77	3951.16	13.48	13.05	273.96	89.38	-588.86	149.17 122.97 5.69
4200.00	4055.99	4178.24	4037.36	14.44	14.00	273.36	99.04	-637.55	159.30 131.20 5.67
4300.00	4142.62	4277.71	4123.57	15.40	14.96	272.83	108.69	-686.23	169.45 139.42 5.64
4400.00	4229.26	4377.19	4209.77	16.37	15.93	272.36	118.34	-734.92	179.61 147.63 5.62
4500.00	4315.89	4476.66	4295.98	17.36	16.91	271.94	128.00	-783.61	189.77 155.83 5.59
4600.00	4402.52	4576.13	4382.18	18.34	17.90	271.56	137.65	-832.30	199.95 164.03 5.57
4700.00	4489.15	4675.60	4468.38	19.34	18.89	271.22	147.31	-880.99	210.14 172.23 5.54
4800.00	4575.78	4775.08	4554.59	20.33	19.88	270.91	156.96	-929.67	220.33 180.43 5.52
4900.00	4662.41	4874.55	4640.79	21.34	20.88	270.62	166.61	-978.36	230.53 188.63 5.50
5000.00	4749.04	4974.02	4726.99	22.34	21.89	270.36	176.27	-1027.05	240.73 196.82 5.48
5100.00	4835.67	5073.49	4813.20	23.35	22.89	270.13	185.92	-1075.74	250.94 205.02 5.46
5200.00	4922.30	5172.97	4899.40	24.36	23.90	269.91	195.58	-1124.42	261.15 213.21 5.45
5300.00	5008.93	5273.50	4986.77	25.37	24.85	269.60	205.25	-1173.20	271.28 221.37 5.43
5400.00	5095.56	5375.26	5077.35	26.39	25.57	268.39	214.26	-1218.66	280.72 229.01 5.43
5488.97	5172.63	5465.20	5159.37	27.29	26.11	266.51	221.44	-1254.85	288.65 235.42 5.42
5500.00	5182.20	5476.30	5169.60	27.39	26.17	266.20	222.27	-1259.05	289.62 236.22 5.42
5600.00	5270.38	5576.60	5263.21	28.08	26.69	263.52	229.27	-1294.36	298.17 243.53 5.46
5700.00	5360.90	5676.37	5358.07	28.70	27.12	261.01	235.28	-1324.65	306.25 250.64 5.51
5800.00	5453.51	5775.61	5453.90	29.24	27.47	258.63	240.29	-1349.92	313.81 257.46 5.57
5900.00	5547.98	5874.32	5550.41	29.69	27.74	256.37	244.30	-1370.18	320.79 263.94 5.64
6000.00	5644.03	5972.50	5647.34	30.07	27.93	254.22	247.33	-1385.45	327.15 270.04 5.73
6100.00	5741.40	6070.14	5744.40	30.36	28.04	252.16	249.37	-1395.77	332.86 275.70 5.82
6154.58	5795.00	6123.20	5797.34	30.48	28.07	251.07	250.08	-1399.34	335.70 278.60 5.88
6200.00	5839.82	6167.25	5841.34	30.57	28.08	250.18	250.45	-1401.20	337.90 280.90 5.93
6300.00	5939.04	6264.96	5939.04	30.71	28.08	248.31	250.63	-1402.13	342.17 285.51 6.04
6400.00	6038.77	6364.68	6038.77	30.76	28.11	247.12	250.63	-1402.13	344.92 288.49 6.11
6487.91	6126.64	6452.56	6126.64	30.75	28.15	179.81	250.63	-1402.13	345.71 289.37 6.14
6500.00	6138.74	6464.65	6138.74	30.75	28.15	179.81	250.63	-1402.13	345.71 289.36 6.14
6600.00	6238.74	6564.65	6238.74	30.80	28.20	179.81	250.63	-1402.13	345.71 289.27 6.13
6700.00	6338.74	6664.65	6338.74	30.85	28.25	179.81	250.63	-1402.13	345.71 289.17 6.11
6800.00	6438.74	6764.65	6438.74	30.90	28.30	179.81	250.63	-1402.13	345.71 289.07 6.10
6900.00	6538.74	6864.65	6538.74	30.95	28.35	179.81	250.63	-1402.13	345.71 288.97 6.09
7000.00	6638.74	6964.65	6638.74	31.00	28.40	179.81	250.63	-1402.13	345.71 288.86 6.08
7100.00	6738.74	7064.65	6738.74	31.05	28.46	179.81	250.63	-1402.13	345.71 288.75 6.07
7200.00	6838.74	7164.65	6838.74	31.10	28.51	179.81	250.63	-1402.13	345.71 288.64 6.06
7300.00	6938.74	7264.65	6938.74	31.16	28.57	179.81	250.63	-1402.13	345.71 288.52 6.05
7400.00	7038.74	7364.65	7038.74	31.22	28.62	179.81	250.63	-1402.13	345.71 288.41 6.03
7500.00	7138.74	7464.65	7138.74	31.27	28.68	179.81	250.63	-1402.13	345.71 288.29 6.02
7600.00	7238.74	7564.65	7238.74	31.33	28.75	179.81	250.63	-1402.13	345.71 288.16 6.01
7700.00	7338.74	7664.65	7338.74	31.39	28.81	179.81	250.63	-1402.13	345.71 288.04 5.99
7800.00	7438.74	7764.65	7438.74	31.46	28.87	179.81	250.63	-1402.13	345.71 287.91 5.98
7900.00	7538.74	7864.65	7538.74	31.52	28.94	179.81	250.63	-1402.13	345.71 287.78 5.97
8000.00	7638.74	7964.65	7638.74	31.58	29.00	179.81	250.63	-1402.13	345.71 287.64 5.95



Weatherford International Ltd.

Anticollision Report



Company: Anadarko-Kerr-McGee
Field: UNTAH CO., UT (STATE PLANE NAD 27)
Reference Site: NBU 921-27D2AS, NBU 57N PAD
Reference Well: 921-27D2AS
Reference Wellpath:

Date: 6/26/2008 **Time:** 14:32:04 **Page:** 6
Co-ordinate(NE) Reference: Well: 921-27D2AS, True North
Vertical (TVD) Reference: SITE 4969.2
Db: Sybase

Site: NBU 921-27D2DS, NBU 57N PAD
Well: 921-27D2DS

Wellpath: 1 V0 Plan: Plan #1 V1

Inter-Site Error: 0.00 ft

Reference MD	Offset TVD	Semi-Major Axis	Offset Location	Ctr-Ctr Edge	Separation	Warning						
MD ft	TVD ft	MD ft	TVD ft	Ref ft	Offset ft	TFO-HS deg	North ft	East ft	Distance ft	Distance ft	Factor	
8100.00	7738.74	8064.65	7738.74	31.65	29.07	179.81	250.63	-1402.13	345.71	287.51	5.94	
8200.00	7838.74	8164.65	7838.74	31.72	29.14	179.81	250.63	-1402.13	345.71	287.37	5.93	
8300.00	7938.74	8264.65	7938.74	31.78	29.21	179.81	250.63	-1402.13	345.71	287.23	5.91	
8400.00	8038.74	8364.65	8038.74	31.85	29.28	179.81	250.63	-1402.13	345.71	287.08	5.90	
8500.00	8138.74	8464.65	8138.74	31.92	29.35	179.81	250.63	-1402.13	345.71	286.93	5.88	
8600.00	8238.74	8564.65	8238.74	32.00	29.43	179.81	250.63	-1402.13	345.71	286.78	5.87	
8700.00	8338.74	8664.65	8338.74	32.07	29.50	179.81	250.63	-1402.13	345.71	286.63	5.85	
8800.00	8438.74	8764.65	8438.74	32.14	29.58	179.81	250.63	-1402.13	345.71	286.47	5.84	
8900.00	8538.74	8864.65	8538.74	32.22	29.66	179.81	250.63	-1402.13	345.71	286.32	5.82	
9000.00	8638.74	8964.65	8638.74	32.30	29.74	179.81	250.63	-1402.13	345.71	286.16	5.81	
9100.00	8738.74	9064.65	8738.74	32.37	29.82	179.81	250.63	-1402.13	345.71	285.99	5.79	
9200.00	8838.74	9164.65	8838.74	32.45	29.90	179.81	250.63	-1402.13	345.71	285.83	5.77	
9300.00	8938.74	9264.65	8938.74	32.53	29.98	179.81	250.63	-1402.13	345.71	285.66	5.76	
9400.00	9038.74	9364.65	9038.74	32.61	30.07	179.81	250.63	-1402.13	345.71	285.49	5.74	
9500.00	9138.74	9464.65	9138.74	32.70	30.15	179.81	250.63	-1402.13	345.71	285.32	5.72	
9600.00	9238.74	9564.65	9238.74	32.78	30.24	179.81	250.63	-1402.13	345.71	285.14	5.71	
9700.00	9338.74	9664.65	9338.74	32.86	30.33	179.81	250.63	-1402.13	345.71	284.97	5.69	
9800.00	9438.74	9764.65	9438.74	32.95	30.42	179.81	250.63	-1402.13	345.71	284.79	5.67	
9900.00	9538.74	9864.65	9538.74	33.04	30.51	179.81	250.63	-1402.13	345.71	284.60	5.66	
10000.00	9638.74	9964.65	9638.74	33.13	30.60	179.81	250.63	-1402.13	345.71	284.42	5.64	
10100.00	9738.74	10064.65	9738.74	33.21	30.69	179.81	250.63	-1402.13	345.71	284.23	5.62	
10200.00	9838.74	10164.65	9838.74	33.30	30.79	179.81	250.63	-1402.13	345.71	284.04	5.61	
10261.26	9900.00	10225.92	9900.00	33.36	30.85	179.81	250.63	-1402.13	345.71	283.93	5.60	

WORKSHEET
APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 07/08/2008

API NO. ASSIGNED: 43-047-40202

WELL NAME: NBU 921-27D2AS

OPERATOR: KERR-MCGEE OIL & GAS (N2995)

CONTACT: KEVIN MCINTYRE

PROPOSED LOCATION:

NENW 27 090S 210E

SURFACE: 0640 FNL 1747 FWL

BOTTOM: 0050 FNL 0350 FWL

COUNTY: UNTAH

LATITUDE: 40.01252 LONGITUDE: -109.5403

UTM SURF EASTINGS: 624581 NORTHINGS: 4429957

FIELD NAME: NATURAL BUTTES (630)

LEASE TYPE: 3 - State

LEASE NUMBER: ST UO 1194A

SURFACE OWNER: 3 - State

PHONE NUMBER: 720-929-6226

INSPECT LOCATN BY: / /		
Tech Review	Initials	Date
Engineering	JKD	8/28/04
Geology		
Surface		

Tech Review	Initials	Date
Engineering	JKD	8/28/04
Geology		
Surface		

RECEIVED AND/OR REVIEWED:

Plat
 Bond: Fed[] Ind[] Sta[] Fee[]
 (No. 22013542)

Potash (Y/N)

Oil Shale 190-5 (B) or 190-3 or 190-13

Water Permit
 (No. 43-8496)

RDCC Review (Y/N)
 (Date: _____)

Fee Surf Agreement (Y/N)

Intent to Commingle (Y/N)

LOCATION AND SITING:

R649-2-3.

Unit: NATURAL BUTTES

R649-3-2. General

Siting: 460' From Qtr/Qtr & 920' Between Wells

R649-3-3. Exception

Drilling Unit

Board Cause No: 123-14

Eff Date: 12-2-1999

Siting: 460' from Qtr/Qtr & 920' Between Wells

R649-3-11. Directional Drill

COMMENTS: _____

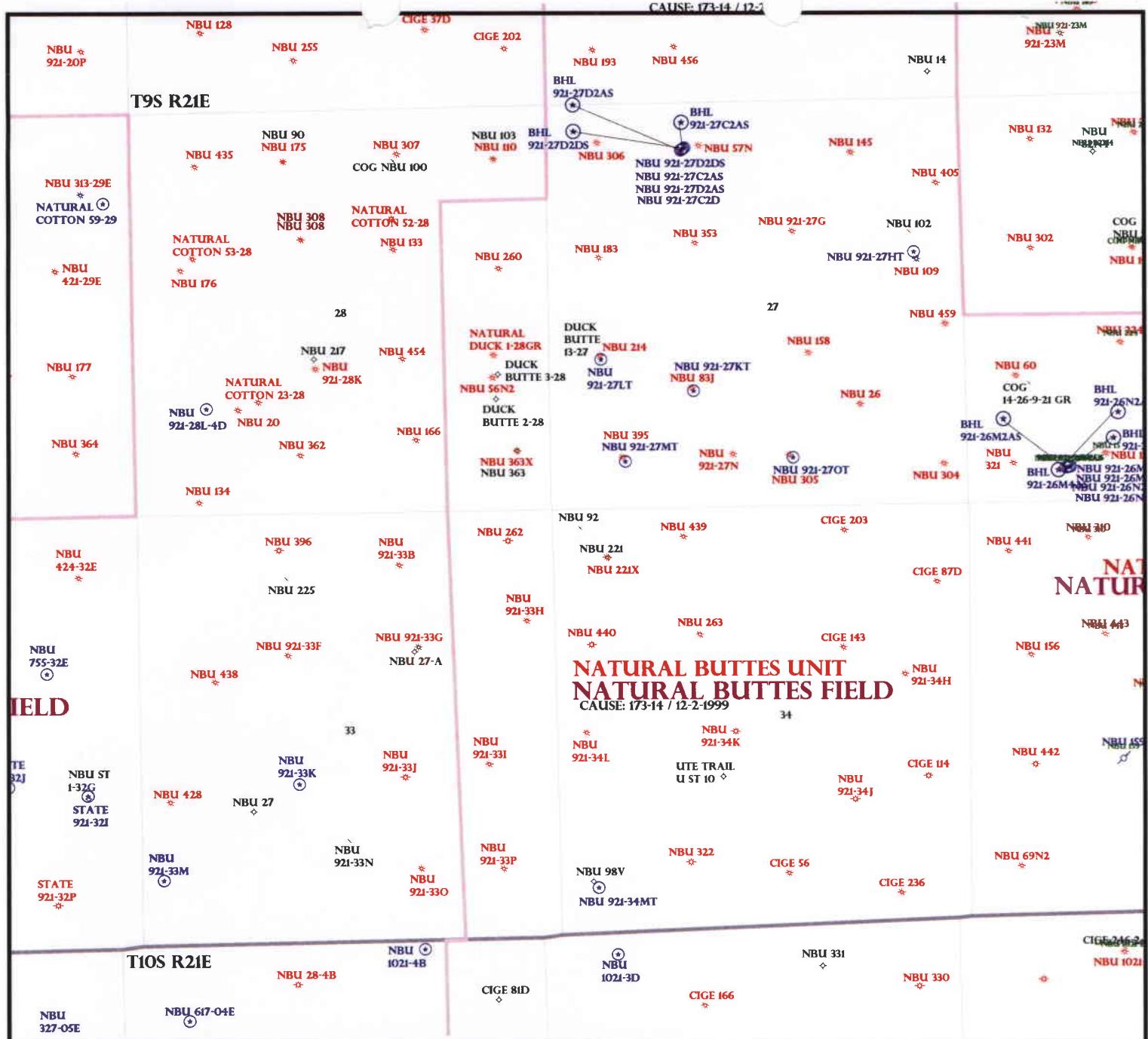
Needs Prest (06-18-08)

STIPULATIONS: _____

1 - STATEMENT OF BASIS

2 - OIL SAMPLE

3 - Surface Csg Cont St. P



- | Field Status | | Unit Status | |
|--------------|-----------------|-----------------------|-----------------------|
| ■ ABANDONED | ■ EXPLORATORY | ■ GAS INJECTION | ■ GAS INJECTION |
| ■ ACTIVE | ■ GAS STORAGE | ■ GAS STORAGE | ■ GAS STORAGE |
| ■ COMBINED | ■ NF PP OIL | ■ LOCATION ABANDONED | ■ LOCATION ABANDONED |
| ■ INACTIVE | ■ NF SECONDARY | ■ NEW LOCATION | ■ NEW LOCATION |
| ■ PROPOSED | ■ PENDING | ■ PLUGGED & ABANDONED | ■ PLUGGED & ABANDONED |
| ■ STORAGE | ■ PI OIL | ■ PRODUCING GAS | ■ PRODUCING GAS |
| ■ TERMINATED | ■ PP GAS | ■ SHUT-IN GAS | ■ SHUT-IN GAS |
| | ■ PP GEOTHERMAL | ■ SHUT-IN OIL | ■ SHUT-IN OIL |
| | ■ PP OIL | ■ TEMP. ABANDONED | ■ TEMP. ABANDONED |
| | ■ SECONDARY | ■ TEST WELL | ■ TEST WELL |
| | ■ TERMINATED | ■ WATER INJECTION | ■ WATER INJECTION |

PREPARED BY: DIANA MASON
DATE: 14-JULY-2008



Application for Permit to Drill

Statement of Basis

8/12/2008

Utah Division of Oil, Gas and Mining

Page 1

APD No	API WellNo	Status	Well Type	Surf Ownr	CBM
874	43-047-40202-00-00		GW	S	No
Operator	KERR-MCGEE OIL & GAS ONSHORE, L.P.	Surface Owner-APD			
Well Name	NBU 921-27D2AS	Unit	NATURAL BUTTES		
Field	NATURAL BUTTES	Type of Work			
Location	NENW 27 9S 21E S	640 FNL 1747 FWL	GPS Coord (UTM) 624581E 4429957N		

Geologic Statement of Basis

Kerr McGee proposes to set 2,400' of surface casing at this location. The depth to the base of the moderately saline water at this location is estimated to be at a depth of 2,000'. A search of Division of Water Rights records shows one water wells within a 10,000 foot radius of the center of Section 27. The well is listed as 200 feet deep and used for drilling water. The surface formation at this site is the Uinta Formation. The Uinta Formation is made up of interbedded shales and sandstones. The sandstones are mostly lenticular and discontinuous and should not be a significant source of useable ground water. The proposed casing and cement should adequately protect. Any usable ground water.

Brad Hill
APD Evaluator

8/11/2008
Date / Time

Surface Statement of Basis

This location is in the Natural Buttes Unit approximately 16.9 road miles southeast of Ouray, Ut.. It is accessed by the Seep Ridge Road to the Uintah County Middle Road then by existing or planned oil field development roads to within 0.1 mile of the site, which will require new construction.

The general area is within a long unnamed wash immediately east of Cottonwood Wash. Both washes enter the White River in the same general area, approximately six miles below the site. The area is characterized by rolling hills, which are frequently divided by somewhat gentle draws that drain northerly. This unnamed wash is an ephemeral drainage. No springs, seeps or streams exist in the area. An occasional pond constructed to supply water for cattle and antelope exists. The washes are sometimes rimed with steep side hills, which have exposed sand stone bedrock cliffs along the rims.

Four gas wells are proposed on this pad. The location is in a relatively flat or slightly rolling area. Topography has a gentle slope to the north with the drainage entering a swale to the south. A portion of the pad will be on an existing location with the wellhead beyond the proposed new disturbance. Two reserve pits were requested. One pit would be used for drilling fluids during the drilling operation and the second for completion fluids. The second pit is not approved with this permit. Kerr McGee was informed they would have to submit a separate application and plan for this pit. No diversions are needed. The selected site has no apparent concerns for constructing a pad, drilling and operating the planned wells and is the best location in the immediate area.

Both the surface and minerals are owned by SITLA. Jim Davis of SITLA reviewed the site and had no concerns regarding the proposal.

Ben Williams of the Utah Division of Wildlife Resources was invited the pre-site visit and did not attend

Floyd Bartlett
Onsite Evaluator

6/18/2008
Date / Time

Application for Permit to Drill

Statement of Basis

8/12/2008

Utah Division of Oil, Gas and Mining

Page 2

Conditions of Approval / Application for Permit to Drill

Category	Condition
Pits	A synthetic liner with a minimum thickness of 16 mils with a felt subliner shall be properly installed and maintained in the reserve pit.
Surface	The reserve pit shall be fenced upon completion of drilling operations.

ON-SITE PREDRILL EVALUATION

Utah Division of Oil, Gas and Mining

Operator	KERR-MCGEE OIL & GAS ONSHORE, L.P.				
Well Name	NBU 921-27D2AS				
API Number	43-047-40202-0	APD No	874	Field/Unit NATURAL BUTTES	
Location: 1/4,1/4 NENW	Sec 27	Tw 9S	Rng 21E	640 FNL	1747 FWL
GPS Coord (UTM)	Surface Owner				

Participants

Floyd Bartlett and David Hackford (DOGM), Jim Davis (SITLA), Raleen White, Kevin McIntyre, Clay Einerson and Tony Kzneck (Kerr McGee) and David Kay (Uintah Engineering and Land Surveying).

Regional/Local Setting & Topography

This location is in the Natural Buttes Unit approximately 16.9 road miles southeast of Ouray, Ut.. It is accessed by the Seep Ridge Road to the Uintah County Middle Road then by existing or planned oil field development roads to within 0.1 mile of the site, which will require new construction.

The general area is within a long unnamed wash immediately east of Cottonwood Wash. Both washes enter the White River in the same general area, approximately six miles below the site. The area is characterized by rolling hills, which are frequently divided by somewhat gentle draws that drain northerly. This unnamed wash is an ephemeral drainage. No springs, seeps or streams exist in the area. An occasional pond constructed to supply water for cattle and antelope exists. The washes are sometimes rimed with steep side hills, which have exposed sand stone bedrock cliffs along the rims.

Four gas wells are proposed on this pad. The location is in a relatively flat or slightly rolling area. Topography has a gentle slope to the north with the drainage entering a swale to the south. A portion of the pad will be on an existing location with the wellhead beyond the proposed new disturbance. Two reserve pits were requested. One pit would be used for drilling fluids during the drilling operation and the second for completion fluids. The second pit is not approved with this permit. Kerr McGee was informed they would have to submit a separate application and plan for this pit. No diversions are needed. The selected site has no apparent concerns for constructing a pad, drilling and operating the planned wells and is the best location in the immediate area.

Both the surface and minerals are owned by SITLA.

Surface Use Plan

Current Surface Use

Grazing

Recreational

Wildlife Habitat

New Road

Miles	Well Pad	Src Const Material	Surface Formation
0.1	Width 290	Length 250	Onsite
			UNTA

Ancillary Facilities N

Waste Management Plan Adequate?

Environmental Parameters

Affected Floodplains and/or Wetland N

Flora / Fauna

Vegetation is a salt desert shrub type. Principal species present are cheatgrass, prickly pear, horsebrush, greasewood, globemallow, wild onion, shadscale, Indian ricegrass, Russian thistle, halogeton, pepper grass and curly mesquite grass.

Cattle, antelope and small mammals and birds.

Soil Type and Characteristics

Soils are a shallow sandy loam.

Erosion Issues N

Sedimentation Issues N

Site Stability Issues N

Drainage Diversion Required N

Berm Required? N

Erosion Sedimentation Control Required? N

Paleo Survey Run? **Paleo Potential Observed?** **Cultural Survey Run?** **Cultural Resources?**

Reserve Pit

Site-Specific Factors

		Site Ranking
Distance to Groundwater (feet)	>200	0
Distance to Surface Water (feet)	>1000	0
Dist. Nearest Municipal Well (ft)	>5280	0
Distance to Other Wells (feet)	<300	20
Native Soil Type	Mod permeability	10
Fluid Type	Fresh Water	5
Drill Cuttings	Normal Rock	0
Annual Precipitation (inches)	<10	0
Affected Populations	<10	0
Presence Nearby Utility Conduits	Not Present	0
	Final Score	35 1 Sensitivity Level

Characteristics / Requirements

The reserve pit is planned in an area of cut in the northeast corner of the location. Dimensions are 100' x 220' x 10' deep with 2' of freeboard. A liner with a minimum thickness of 16 mils. and a felt sub-liner are required.

Closed Loop Mud Required? N **Liner Required? Y** **Liner Thickness 16** **Pit Underlayment Required? Y**

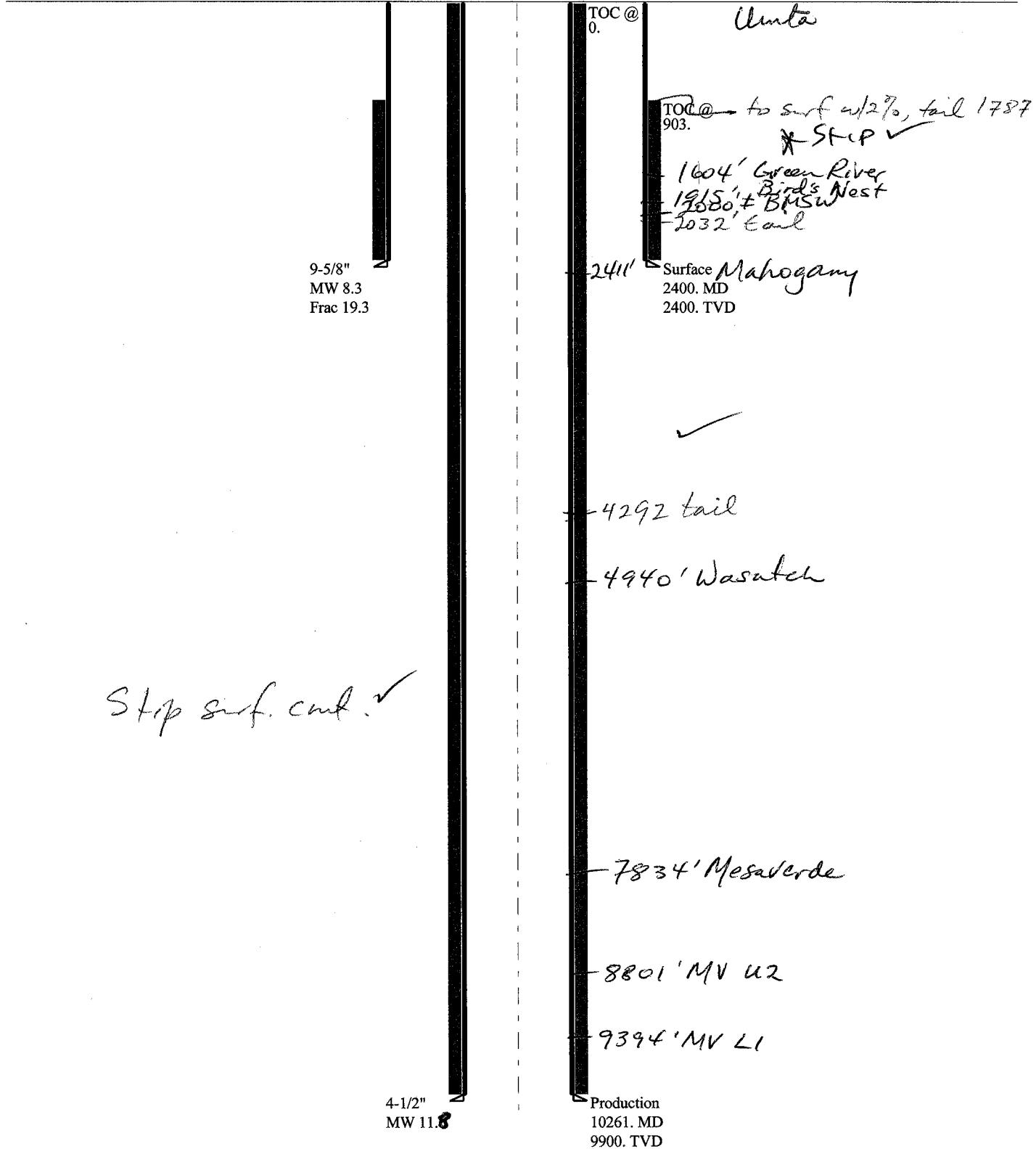
Other Observations / Comments

Floyd Bartlett
Evaluator

6/18/2008
Date / Time

43047402020000 NBU 921-27D2AS

Casing Schematic



Well name:	43047402020000 NBU 921-27D2AS		
Operator:	Kerr McGee Oil & Gas Onshore L.P.		
String type:	Surface		
Location:	Uintah County, Utah	Project ID:	43-047-40202-0000

Design parameters:
Collapse

Mud weight: 8.330 ppg
 Design is based on evacuated pipe.

Burst

Max anticipated surface pressure: 2,112 psi
 Internal gradient: 0.120 psi/ft
 Calculated BHP 2,400 psi

No backup mud specified.

Minimum design factors:
Collapse:

Design factor 1.125

Burst:

Design factor 1.00

Tension:

8 Round STC:	1.80 (J)
8 Round LTC:	1.80 (J)
Buttress:	1.60 (J)
Premium:	1.50 (J)
Body yield:	1.50 (B)

Tension is based on buoyed weight.
 Neutral point: 2,104 ft

Environment:

H2S considered? No
 Surface temperature: 75 °F
 Bottom hole temperature: 109 °F
 Temperature gradient: 1.40 °F/100ft
 Minimum section length: 1,300 ft

Cement top: 903 ft

Completion type is subs
 Non-directional string.

Re subsequent strings:

Next setting depth:	9,900 ft
Next mud weight:	11.800 ppg
Next setting BHP:	6,068 psi
Fracture mud wt:	19.250 ppg
Fracture depth:	2,400 ft
Injection pressure:	2,400 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft³)
1	2400	9.625	36.00	J-55	LT&C	2400	2400	8.796	1041.7
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
1	1038	2020	1.945	2400	3520	1.47	76	453	5.98 J

Prepared Helen Sadik-Macdonald
 by: Div of Oil,Gas & Minerals

Phone: (801) 538-5357
 FAX: (801) 359-3940

Date: August 19,2008
 Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 2400 ft, a mud weight of 8.33 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Well name:

43047402020000 NBU 921-27D2ASOperator: **Kerr McGee Oil & Gas Onshore L.P.**

String type: Production

Project ID:

43-047-40202-0000

Location: Uintah County, Utah

Design parameters:**Collapse**

Mud weight: 11.800 ppg
 Internal fluid density: 2.300 ppg

Burst

Max anticipated surface pressure: 3,890 psi
 Internal gradient: 0.220 psi/ft
 Calculated BHP 6,068 psi

No backup mud specified.

Minimum design factors:**Collapse:**

Design factor 1.125

Burst:

Design factor 1.00

Environment:

H2S considered? No
 Surface temperature: 75 °F
 Bottom hole temperature: 214 °F
 Temperature gradient: 1.40 °F/100ft
 Minimum section length: 1,500 ft

Cement top: Surface

Tension:

8 Round STC:	1.80 (J)
8 Round LTC:	1.80 (J)
Buttress:	1.60 (J)
Premium:	1.50 (J)
Body yield:	1.50 (B)

Completion type is subs

Directional Info - Build & Hold

Kick-off point	2460 ft
Departure at shoe:	1525 ft
Maximum dogleg:	3 °/100ft
Inclination at shoe:	0 °

Tension is based on buoyed weight.

Neutral point: 8,515 ft

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft³)
1	10261	4.5	11.60	I-80	LT&C	9900	10261	3.875	895.4
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
1	4886	6360	1.302	6068	7780	1.28	95	212	2.24 J

Prepared Helen Sadik-Macdonald
 by: Div of Oil,Gas & Minerals

Phone: (801) 538-5357
 FAX: (801) 359-3940

Date: August 18,2008
 Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 9900 ft, a mud weight of 11.8 ppg. An internal gradient of .119 psi/ft was used for collapse from TD
 Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

BOPE REVIEW**Kerr-McGee NBU 921-27D2AS API 43-047-40202-0000****INPUT**

Well Name

Casing Size (")

Setting Depth (TVD)

Previous Shoe Setting Depth (TVD)

Max Mud Weight (ppg)

BOPE Proposed (psi)

Casing Internal Yield (psi)

Operators Max Anticipated Pressure (psi)

Kerr-McGee NBU 921-27D2AS API 43-047-40202-0000			
String 1	String 2		
9 5/8	4 1/2		
2400	9900		
20	2400		
8.4	11.8		
500	5000		
3520	7780		
6138	11.9 ppg		

Calculations

String 1

9 5/8 "

Max BHP [psi]	.052*Setting Depth*MW =	1048	BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) [psi]	Max BHP-(0.12*Setting Depth) =	760	NO <i>O.K.</i> , Air Drill to surface shoe with diverter
MASP (Gas/Mud) [psi]	Max BHP-(0.22*Setting Depth) =	520	NO
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth) =	525	← NO <i>No expected pressure - Birds Nest LC poss. b/c</i>
Required Casing/BOPE Test Pressure		2400 psi	
*Max Pressure Allowed @ Previous Casing Shoe =		20 psi	*Assumes 1psi/ft frac gradient

Calculations

String 2

4 1/2 "

Max BHP [psi]	.052*Setting Depth*MW =	6075	BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) [psi]	Max BHP-(0.12*Setting Depth) =	4887	YES
MASP (Gas/Mud) [psi]	Max BHP-(0.22*Setting Depth) =	3897	YES
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth) =	4425	← NO <i>Reasonable</i>
Required Casing/BOPE Test Pressure		5000 psi	
*Max Pressure Allowed @ Previous Casing Shoe =		2400 psi	*Assumes 1psi/ft frac gradient



Kerr-McGee Oil & Gas Onshore LP
1999 Broadway, Suite 3700
Denver, CO 80205

June 24, 2008

Mrs. Diana Mason
Division of Oil, Gas and Mining
P.O. Box 145801
Salt Lake City, UT 84114-6100

Re: Directional Drilling R649-3-11
NBU 921-27D2AS
T9S-R21E
Section 27: NWNW
Surface: 640' FNL, 1747' FWL
Bottom Hole: 50' FNL, 350' FWL
Uintah County, Utah

Dear Mrs. Mason:

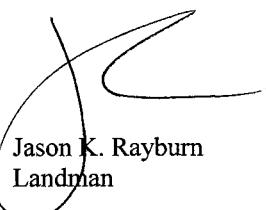
Pursuant to the filing of Kerr-McGee Oil & Gas Onshore LP's (Kerr-McGee) Application for Permit to Drill regarding the above referenced well, we are hereby submitting this letter in accordance with Oil & Gas Conservation Rule R649-3-11 pertaining to the Exception to Location and Siting of Wells.

- Kerr-McGee's NBU 921-27D2AS is located within the Natural Buttes Unit area.
- Kerr-McGee is permitting this well as a directional well in order to minimize surface disturbance. Locating the well at the surface location and directionally drilling from this location, Kerr-McGee will be able to utilize the existing road and pipelines in the area.
- Furthermore, Kerr-McGee certifies that it is the sole working interest owner within 460 feet of the entire directional well bore and all of section 27 (State Lease UT ST UO 01194-A ST).

Therefore, based on the above stated information Kerr-McGee Oil & Gas Onshore LP requests the permit be granted pursuant to R649-3-11.

Sincerely,

KERR-MCGEE OIL & GAS ONSHORE LP


Jason K. Rayburn
Landman

RECEIVED
JUL 08 2008
DIV. OF OIL, GAS & MINING

United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Utah State Office
P.O. Box 45155
Salt Lake City, Utah 84145-0155

IN REPLY REFER TO:
3160
(UT-922)

July 15, 2008

Memorandum

To: Assistant District Manager Minerals, Vernal District
From: Michael Coulthard, Petroleum Engineer
Subject: 2008 Plan of Development Natural Buttes Unit
Uintah County, Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following wells are planned for calendar year 2008 within the Natural Buttes Unit, Uintah County, Utah.

API #	WELL NAME	LOCATION
(Proposed PZ Wasatch/MesaVerde)		
43-047-40184	NBU 921-30FT	Sec 30 T09S R21E 1585 FNL 2614 FWL
43-047-40185	NBU 921-31BT	Sec 31 T09S R21E 0670 FNL 2008 FEL
43-047-40170	NBU 921-27KT	Sec 27 T09S R21E 1527 FSL 1821 FWL
43-047-40171	NBU 921-27MT	Sec 27 T09S R21E 0634 FSL 0931 FWL
43-047-40172	NBU 921-27OT	Sec 27 T09S R21E 0646 FSL 2211 FEL
43-047-40173	NBU 921-27HT	Sec 27 T09S R21E 2025 FNL 0623 FEL
43-047-40174	NBU 921-27LT	Sec 27 T09S R21E 1954 FSL 0641 FWL
43-047-40175	NBU 921-33K	Sec 33 T09S R21E 2066 FSL 1926 FWL
43-047-40227	NBU 921-27C2D	Sec 27 T09S R21E 0650 FNL 1730 FWL
43-047-40203	NBU 921-27D2DS	Sec 27 T09S R21E 0660 FNL 1713 FWL
	BHL	Sec 27 T09S R21E 0395 FNL 0350 FWL
43-047-40202	NBU 921-27D2AS	Sec 27 T09S R21E 0640 FNL 1747 FWL
	BHL	Sec 27 T09S R21E 0050 FNL 0350 FWL
43-047-40201	NBU 921-27C2AS	Sec 27 T09S R21E 0630 FNL 1765 FWL
	BHL	Sec 27 T09S R21E 0300 FNL 1730 FWL
43-047-40169	NBU 921-26IT	Sec 26 T09S R21E 1964 FSL 0674 FEL
43-047-40176	NBU 922-29NT	Sec 29 T09S R22E 0845 FSL 1627 FWL
43-047-40177	NBU 922-29KT	Sec 29 T09S R22E 1795 FSL 1936 FWL
43-047-40178	NBU 922-31BT	Sec 31 T09S R22E 0888 FNL 2191 FEL

43-047-40179 NBU 922-32ET	Sec 32 T09S R22E 2477 FNL 0094 FWL
43-047-40186 NBU 922-33OT	Sec 33 T09S R22E 0692 FSL 1465 FEL
43-047-40187 NBU 922-33NT	Sec 33 T09S R22E 0890 FSL 2291 FWL
43-047-40188 NBU 922-33IT	Sec 33 T09S R22E 2115 FSL 0579 FEL
43-047-40191 NBU 1022-04GT	Sec 04 T10S R22E 1897 FNL 1861 FEL
43-047-40189 NBU 922-35IT	Sec 35 T09S R22E 2133 FSL 0627 FEL
43-047-40190 NBU 1022-01CT	Sec 01 T10S R22E 0819 FNL 2106 FWL
43-047-40192 NBU 1022-08IT	Sec 08 T10S R22E 1757 FSL 0323 FEL
43-047-40193 NBU 1022-08GT	Sec 08 T10S R22E 2313 FNL 1922 FEL
43-047-40194 NBU 1022-09AT	Sec 09 T10S R22E 0472 FNL 0582 FEL
43-047-40195 NBU 1022-10HT	Sec 10 T10S R22E 1798 FNL 0297 FEL
43-047-40196 NBU 1022-10FT	Sec 10 T10S R22E 2200 FNL 2094 FWL
43-047-40204 NBU 1022-32D1S	Sec 32 T10S R22E 0205 FNL 2058 FWL BHL Sec 32 T10S R22E 0270 FNL 1310 FWL
43-047-40205 NBU 1022-32D4AS	Sec 32 T10S R22E 0198 FNL 2077 FWL BHL Sec 32 T10S R22E 0760 FNL 1180 FWL
43-047-40206 NBU 1022-32B3S	Sec 32 T10S R22E 0185 FNL 2114 FWL BHL Sec 32 T10S R22E 1150 FNL 2130 FEL
43-047-40207 NBU 1022-32D4DS	Sec 32 T10S R22E 0192 FNL 2096 FWL BHL Sec 32 T10S R22E 1240 FNL 1050 FWL

This office has no objection to permitting the wells at this time.

/s/ Michael L. Coulthard

bcc: File - Natural Buttes Unit
Division of Oil Gas and Mining
Central Files
Agr. Sec. Chron
Fluid Chron

MCoulthard:mc:7-15-08

From: Jim Davis
To: Bonner, Ed; Mason, Diana
Date: 10/23/2008 7:39 AM
Subject: The following wells have been approved by SITLA including arch and paleo clearance.

The following wells have been approved by SITLA including arch and paleo clearance.

Kerr-McGee's NBU 921-27C2AS [API #4304740201]
Kerr-McGee's NBU 921-27D2AS [API #4304740202]
Kerr-McGee's NBU 921-27D2DS [API #4304740203]
Kerr-McGee's NBU 921-27C2D [API #4304740227]

-Jim

Jim Davis
Utah Trust Lands Administration
jimdavis1@utah.gov
Phone: (801) 538-5156



State of Utah

DEPARTMENT OF NATURAL RESOURCES

JON M. HUNTSMAN, JR.
Governor

GARY R. HERBERT
Lieutenant Governor

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

November 4, 2008

Kerr-McGee Oil & Gas Onshore, LP
P O Box 173779
Denver, CO 80217-3779

Re: NBU 921-27D2AS Well, 640' FNL, 1747' FWL, NE NW, Sec. 27, T. 9 South,
R. 21 East, Bottom Location 50' FNL, 350' FWL, NW NW, Sec. 27, T. 9 South,
R. 21 East, Uintah County, Utah

Gentlemen:

Pursuant to the provisions and requirements of Utah Code Ann. § 40-6-1 *et seq.*, Utah Administrative Code R649-3-1 *et seq.*, and the attached Conditions of Approval, approval to drill the referenced well is granted.

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-047-40202.

Sincerely,

Gil Hunt
Associate Director

pab
Enclosures

cc: Uintah County Assessor
SITLA
Bureau of Land Management, Vernal Office



Operator: Kerr-McGee Oil & Gas Onshore, LP

Well Name & Number: NBU 921-27D2AS

API Number: 43-047-40202

Lease: ST UO 1194A

Location: NE NW **Sec.** 27 **T.** 9 South **R.** 21 East
Bottom Location: NW NW **Sec.** 27 **T.** 9 South **R.** 21 East

Conditions of Approval

1. General

Compliance with the requirements of Utah Admin. R. 649-1 *et seq.*, the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

2. Notification Requirements

The operator is required to notify the Division of Oil, Gas and Mining of the following action during drilling of this well:

- 24 hours prior to cementing or testing casing – contact Dan Jarvis
- 24 hours prior to testing blowout prevention equipment – contact Dan Jarvis
- 24 hours prior to spudding the well – contact Carol Daniels
- Within 24 hours of any emergency changes made to the approved drilling program – contact Dustin Doucet
- Prior to commencing operations to plug and abandon the well – contact Dan Jarvis

The operator is required to get approval from the Division of Oil, Gas and Mining before performing any of the following actions during the drilling of this well:

- Plugging and abandonment or significant plug back of this well – contact Dustin Doucet
- Any changes to the approved drilling plan – contact Dustin Doucet

The following are Division of Oil, Gas and Mining contacts and their telephone numbers (please leave a voice mail message if the person is not available to take the call):

- Dan Jarvis at: (801) 538-5338 office (801) 942-0871 home
- Carol Daniels at: (801) 538-5284 office
- Dustin Doucet at: (801) 538-5281 office (801) 733-0983 home

3. Reporting Requirements

All required reports, forms and submittals will be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.

Page 2
43-047-40202
November 4, 2008

4. Compliance with the State of Utah Antiquities Act forbids disturbance of archeological, historical, or paleontological remains. Should archeological, historical or paleontological remains be encountered during your operations, you are required to immediately suspend all operations and immediately inform the Trust Lands Administration and the Division of State History of the discovery of such remains.
5. Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis. (Copy Attached)
6. In accordance with Utah Admin. R.649-3-11, Directional Drilling, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.
7. In accordance with Order in Cause No. 190-5(b) dated October 28, 1982, the Operator shall comply with requirements of Rules R649-3-31 and R649-3-27 pertaining to Designated Oil Shale Areas. Additionally, the operator shall ensure that the surface and/or production casing is properly cemented over the entire oil shale interval as defined by Rule R649-3-31. The Operator shall report the actual depth the oil shale is encountered to the Division.
8. Surface casing shall be cemented to the surface.

DIVISION OF OIL, GAS AND MINING

SPUDDING INFORMATION

Name of Company: KERR-McGEE OIL & GAS ONSHORE, L.P.

Well Name: NBU 921-27D2AS

Api No: 43-047-40202 Lease Type: STATE

Section 27 Township 09S Range 21E County UINTAH

Drilling Contractor PETE MARTIN DRLG RIG # BUCKET

SPUDDED:

Date 01/08/2009

Time 3:00 PM

How DRY

Drilling will Commence: _____

Reported by LEW WELDON

Telephone # (435) 828-7035

Date 01/08/2009 Signed CHD

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 6

ENTITY ACTION FORM

Operator: KERR McGEE OIL & GAS ONSHORE LP Operator Account Number: N 2995
 Address: 1368 SOUTH 1200 EAST
 city VERNAL
 state UT zip 84078 Phone Number: (435) 781-7024

Well 1

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304740203	NBU 921-27D2DS		NENW	27	9S,	21E	UINTAH
Action Code	Current Entity Number	New Entity Number	Spud Date			Entity Assignment Effective Date	
B	99999	2900	1/9/2009			1/15/09	

Comments: MIRU PETE MARTIN BUCKET RIG. WSMVD
SPUD WELL LOCATION ON 01/09/2009 AT 1030 HRS. BHL = NWNW

Well 2

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304740227	NBU 921-27C2D		NENW	27	9S,	21E	UINTAH
Action Code	Current Entity Number	New Entity Number	Spud Date			Entity Assignment Effective Date	
B	99999	2900	1/8/2009			1/15/09	

Comments: MIRU PETE MARTIN BUCKET RIG. WSMVD
SPUD WELL LOCATION ON 01/08/2009 AT 1600 HRS.

Well 3

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304740202	NBU 921-27D2AS		NENW	27	9S,	21E	UINTAH
Action Code	Current Entity Number	New Entity Number	Spud Date			Entity Assignment Effective Date	
B	99999	2900	1/8/2009			1/15/09	

Comments: MIRU PETE MARTIN BUCKET RIG. WSMVD
SPUD WELL LOCATION ON 01/08/2009 AT 1500 HRS. BHL = NWNW

ACTION CODES:

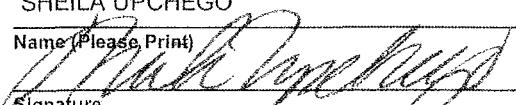
- A - Establish new entity for new well (single well only)
- B - Add new well to existing entity (group or unit well)
- C - Re-assign well from one existing entity to another existing entity
- D - Re-assign well from one existing entity to a new entity
- E - Other (Explain in 'comments' section)

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SHEILA UPCHEGO

Name (Please Print)



Signature

REGULATORY ANALYST

Title

1/9/2009

Date

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

1. TYPE OF WELL	OIL WELL <input type="checkbox"/>	GAS WELL <input checked="" type="checkbox"/>	OTHER _____	5. LEASE DESIGNATION AND SERIAL NUMBER: ST UO-01194A	
2. NAME OF OPERATOR:	KERR McGEE OIL & GAS ONSHORE LP			6. IF INDIAN, ALLOTTEE OR TRIBE NAME:	
3. ADDRESS OF OPERATOR:	1368 SOUTH 1200 EAST	CITY VERNAL	STATE UT	ZIP 84078	7. UNIT or CA AGREEMENT NAME: UNIT #891008900A
				PHONE NUMBER: (435) 781-7024	8. WELL NAME and NUMBER: NBU 921-27D2AS
4. LOCATION OF WELL	FOOTAGES AT SURFACE: 640'FNL, 1747'FWL			9. API NUMBER: 4304740202	10. FIELD AND POOL, OR WILDCAT: NATURAL BUTTES
				COUNTY: UNTAH	
	QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NENW 27 9S, 21E			STATE:	UTAH
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA					
TYPE OF SUBMISSION		TYPE OF ACTION			
<input type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will start: <hr/>		<input type="checkbox"/> ACIDIZE <input type="checkbox"/> DEEPEN <input type="checkbox"/> ALTER CASING <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> CASING REPAIR <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> PLUG BACK <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> PRODUCTION (START/RESUME) <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION			
<input checked="" type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion: <hr/>		<input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> TEMPORARILY ABANDON <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> WATER SHUT-OFF <input checked="" type="checkbox"/> OTHER: <u>WELL SPUD</u>			

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

MIRU PETE MARTIN BUCKET RIG. DRILLED 20" CONDUCTOR HOLE TO 40'. RAN 14" 36.7# SCHEDULE 10 PIPE. CMT W/28 SX READY MIX.

SPUD WELL LOCATION ON 01/08/2009 AT 1500 HRS.

NAME (PLEASE PRINT)	SHEILA UPCHEGO			TITLE	REGULATORY ANALYST	
SIGNATURE				DATE	1/9/2009	

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JAN 12 2009

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

1. TYPE OF WELL	OIL WELL <input type="checkbox"/>	GAS WELL <input checked="" type="checkbox"/>	OTHER _____	5. LEASE DESIGNATION AND SERIAL NUMBER: ST UO-01194A	
2. NAME OF OPERATOR:	KERR McGEE OIL & GAS ONSHORE LP			6. IF INDIAN, ALLOTTEE OR TRIBE NAME:	
3. ADDRESS OF OPERATOR:	1368 SOUTH 1200 EAST	CITY VERNAL	STATE UT	ZIP 84078	7. UNIT or CA AGREEMENT NAME: UNIT #891008900A
4. LOCATION OF WELL	FOOTAGES AT SURFACE: 640'FNL, 1747'FWL			PHONE NUMBER: (435) 781-7024	8. WELL NAME and NUMBER: NBU 921-27D2AS
				9. API NUMBER: 4304740202	10. FIELD AND POOL, OR WILDCAT: NATURAL BUTTES
				STATE: UTAH	COUNTY: UNTAH
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:	NENW 27 9S, 21E			STATE: UTAH	

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate)	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	
Approximate date work will start: <hr/>	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	
<input checked="" type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only)	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON	
Date of work completion: <hr/>	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR	
	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLARE	
	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL	
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/RESUME)	<input type="checkbox"/> WATER SHUT-OFF	
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input checked="" type="checkbox"/> OTHER: <u>SET SURFACE CSG</u>	
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION		

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

MIRU PROPETRO AIR RIG ON 01/20/2009. DRILLED 12 1/4" SURFACE HOLE TO 2550'. RAN 9 5/8" 36# J-55 SURFACE CSG. LEAD CMT W/240 SX HIFILL CLASS G @11.0 PPG 3.82 YIELD. TAILED CMT W/200 SX PREM CLASS G @15.8 PPG 1.15 YIELD. 30 +/- BBLS OF LEAD CMT TO SURFACE LIFT 490 PSI BUMP PLUG 700 PSI FLOAT HELD. RAN 200' OF 1" PIPE. CMT W/125 SX PREM CLASS G @15.8 PPG 1.15 YIELD DOWN 1" PIPE. CMT TO SURFACE AND FELL BACK. TOP OUT W/100 SX PREM CLASS G @15.8 PPG 1.15 YIELD. GOOD CMT TO SURFACE HOLE STAYED FULL.

WORT.

NAME (PLEASE PRINT)	SHEILA UPCHEGO	TITLE	REGULATORY ANALYST
SIGNATURE		DATE	2/9/2009

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DIV. OF OIL, GAS & MINING

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

1. TYPE OF WELL	OIL WELL <input type="checkbox"/>	GAS WELL <input checked="" type="checkbox"/>	OTHER _____	5. LEASE DESIGNATION AND SERIAL NUMBER: ST UO-01194A	
2. NAME OF OPERATOR:	KERR McGEE OIL & GAS ONSHORE LP			6. IF INDIAN, ALLOTTEE OR TRIBE NAME:	
3. ADDRESS OF OPERATOR:	1368 SOUTH 1200 EAST	CITY VERNAL	STATE UT	ZIP 84078	7. UNIT or CA AGREEMENT NAME: UNIT #891008900A
				PHONE NUMBER: (435) 781-7024	8. WELL NAME and NUMBER: NBU 921-27D2AS
4. LOCATION OF WELL	FOOTAGES AT SURFACE: 640'FNL, 1747'FWL			9. API NUMBER: 4304740202	
				10. FIELD AND POOL, OR WILDCAT: NATURAL BUTTES	
				COUNTY: UNTAH	
				STATE: UTAH	
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA					
TYPE OF SUBMISSION		TYPE OF ACTION			
<input type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will start: <hr/>		<input type="checkbox"/> ACIDIZE <input type="checkbox"/> ALTER CASING <input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> DEEPEN <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> PLUG BACK <input type="checkbox"/> PRODUCTION (START/RESUME) <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	<input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> TEMPORARILY ABANDON <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> WATER SHUT-OFF	<input type="checkbox"/> OTHER: <u>FINAL DRILLING OPERATIONS</u>
<input checked="" type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion: <hr/>					

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

FINISHED DRILLING FROM 2550' TO 10,470' ON 04/06/2009. RAN 4 1/2" 11.6# I-80 PRODUCTION CSG. LEAD CMT W/565 SX PREM LITE II @11.6 PPG 2.61 YIELD. TAILED CMT W/1590 SX 50/50 POZ @14.3 PPG 1.31 YIELD. DROP PLUG & DISPLACE W/162 BBLS WATER BUMP PLUG W/500 OVER FINAL CIRC PSI OF 2670 GO NO CMT TO PIT. SET SLIPS W/105K ON STRING WT NIPPLE DOWN BOP.

RELEASED ENSIGN RIG 139 ON 04/08/2009 AT 0600 HRS.

NAME (PLEASE PRINT)	SHEILA UPCHEGO	TITLE	REGULATORY ANALYST
SIGNATURE		DATE	4/8/2009

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DIV. OF OIL, GAS & MINING

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

1. TYPE OF WELL	OIL WELL <input type="checkbox"/>	GAS WELL <input type="checkbox"/>	OTHER <u>COMPLETION PIT</u>	5. LEASE DESIGNATION AND SERIAL NUMBER: ST UO-01194	
2. NAME OF OPERATOR:	KERR-MCGEE OIL & GAS ONSHORE LP			6. IF INDIAN, ALLOTTEE OR TRIBE NAME:	
3. ADDRESS OF OPERATOR:	1368 SOUTH 1200 EAST	VERNAL	UT	84078	7. UNIT or CA AGREEMENT NAME: <u>MULTIPLE NBU 921-27D2AS</u>
4. LOCATION OF WELL				PHONE NUMBER: (435) 781-7024	8. WELL NAME and NUMBER: <u>MULTIPLE 43 047 40202</u>
FOOTAGES AT SURFACE:				9. API NUMBER: 10. FIELD AND POOL, OR WILDCAT: NATURAL BUTTES	

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NW/4 27 9S 21E STATE: UTAH
COUNTY: UNTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate)	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
Approximate date work will start: _____	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
<input type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only)	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON
Date of work completion: _____	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLARE
	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/RESUME)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input checked="" type="checkbox"/> OTHER: <u>COMPLETION PIT</u>
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

KERR MCGEE OIL AND GAS ONSHORE LP REQUESTS TO UTILIZE A 2ND PIT (COMPLETION PIT) ON THE MULTI-WELL PAD FOR NBU 921-27C2AS, 27C2D, 27D2AS & 27D2DS. THE NEED TO UTILIZE THE COMPLETION PIT IS DUE TO THE INCREASE VOLUME OF COMPLETION FLUIDS DURING FRAC OPERATIONS. THE COMPLETION PIT WILL BE LINED ACCORDING TO THE CONDITIONS OF APPROVAL STATED IN THE APPROVED APDS. AT THIS TIME KERR MCGEE ALSO REQUESTS TO DEEPEN THE PIT TO 12' INSTEAD OF 6' AS STATED IN THE LAYOUT DIAGRAM.

THE EXISTING PIT THAT CONTAINS THE DRILLING MUD WILL ALSO NEED TO BE CLEANED OUT AND RE-LINED FOR SUFFICIENT CAPACITY AND TO INSURE THE INTEGRITY OF THE LINER. THE DRILLING MUD WILL BE MIXED WITH THE SPOIL PILE AS IF THE PIT WAS BEING RECLAIMED. ONCE THE PITS ARE REPACKED THE RECLAMATION PROCESS APPROVED IN THE APD WILL BE FOLLOWED.

Approved by the
Utah Division of
Oil, Gas and Mining

PLEASE SEE ATTACHED LAYOUT DIAGRAM

All Fluids shall
be removed from
pits after
flowback. By: By: [Signature]

NAME (PLEASE PRINT)	RAMEY HOOPES	TITLE	REGULATORY ANALYST
SIGNATURE	<u>Ramey Hoopes</u>	DATE	4/24/2009

(This space for State use only)

COPY SENT TO OPERATOR

Date: 5.4.2009

Initials: KS

(See Instructions on Reverse Side)

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APR 28 2009

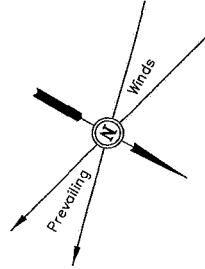
DIV. OF OIL, GAS & MINING

Kerr-McGee Oil & Gas Onshore LP

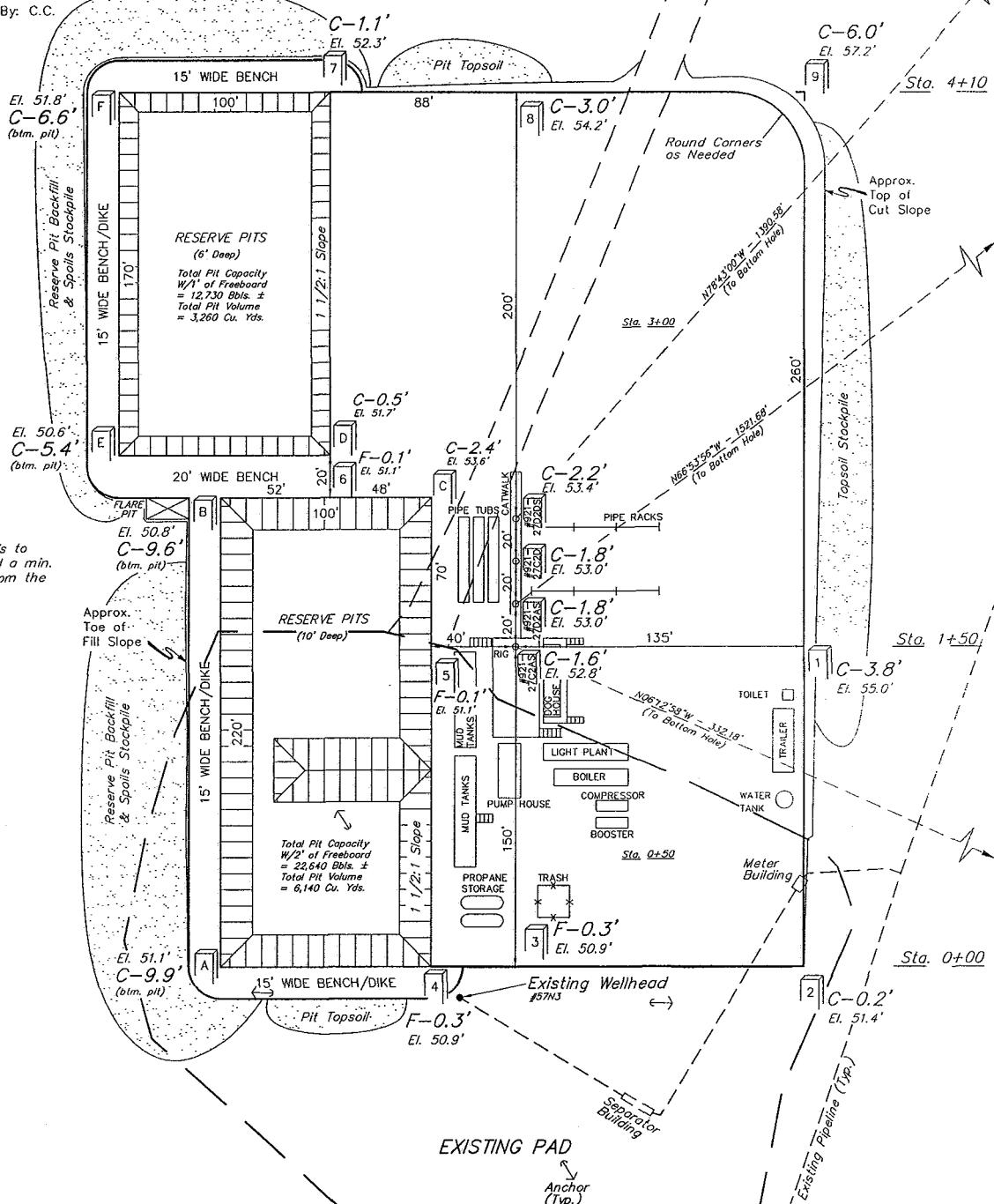
SITE PLAN LAYOUT FOR

NBU #921-27C2AS, #921-27D2AS,
#921-27C2D & #921-27D2DS
SECTION 27, T9S, R21E, S.L.B.&M.
NE 1/4 NW 1/4

FIGURE #1



SCALE: 1" = 50'
DATE: 05-29-08
Drawn By: C.C.



NOTES:

Elev. Ungraded Ground At #921-27C2AS Loc. Stake = 4952.8'
FINISHED GRADE ELEV. AT #921-27C2AS LOC. STAKE = 4951.2'

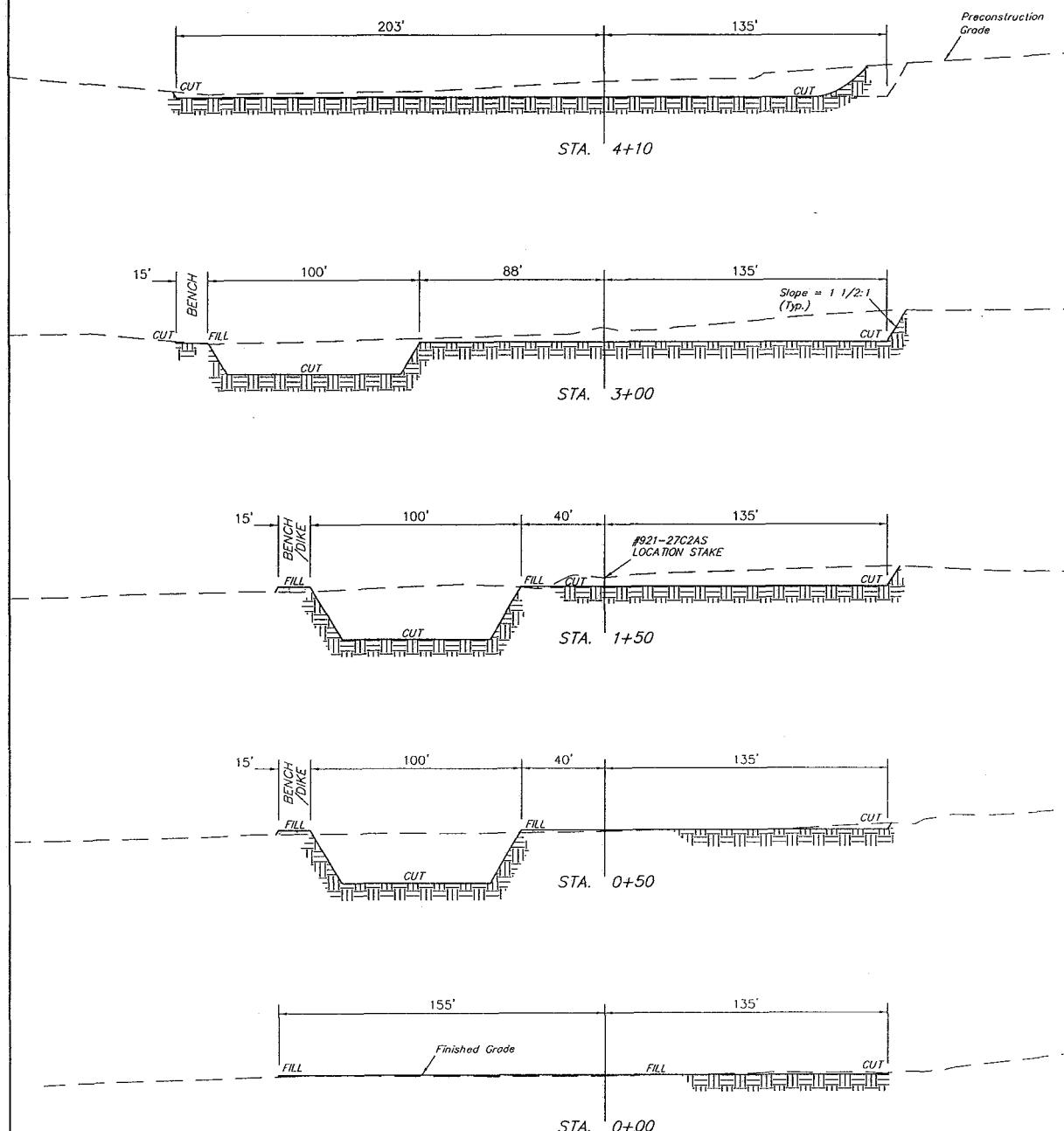
Kerr-McGee Oil & Gas Onshore LP

FIGURE #2

1" = 20'
X-Section
Scale
1" = 50'

DATE: 05-29-08
Drawn By: C.C.

TYPICAL CROSS SECTIONS FOR
NBU #921-27C2AS, #921-27D2AS,
#921-27C2D & #921-27D2DS
SECTION 27, T9S, R21E, S.L.B.&M.
NE 1/4 NW 1/4



NOTE:

Topsoil should not be
Stripped Below Finished
Grade on Substructure Area.

* NOTE:
FILL QUANTITY INCLUDES
5% FOR COMPACTION

APPROXIMATE YARDAGES

CUT

(6") Topsoil Stripping = 1,750 Cu. Yds.
(New Construction Only)

Remaining Location = 15,140 Cu. Yds.

TOTAL CUT = 16,890 CU.YDS.

FILL = 580 CU.YDS.

EXCESS MATERIAL = 16,310 Cu. Yds.

Topsoil & Pit Backfill = 6,450 Cu. Yds.
(1/2 Pit Vol.)

EXCESS UNBALANCE = 9,860 Cu. Yds.
(After Interim Rehabilitation)

STATE OF UTAH
 DEPARTMENT OF NATURAL RESOURCES
 DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

1. TYPE OF WELL

Gas Well

2. NAME OF OPERATOR:

KERR-MCGEE OIL & GAS ONSHORE, L.P.

3. ADDRESS OF OPERATOR:

P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER:

720 929-6587 Ext

4. LOCATION OF WELL**FOOTAGES AT SURFACE:**

0640 FNL 1747 FWL

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:

Qtr/Qtr: NENW Section: 27 Township: 09.0S Range: 21.0E Meridian: S

5. LEASE DESIGNATION AND SERIAL NUMBER:
ST UO 1194A**6. IF INDIAN, ALLOTTEE OR TRIBE NAME:****7. UNIT or CA AGREEMENT NAME:**
NATURAL BUTTES**8. WELL NAME and NUMBER:**
NBU 921-27D2AS**9. API NUMBER:**
43047402020000**9. FIELD and POOL or WILDCAT:**
NATURAL BUTTES**COUNTY:**
UINTAH**STATE:**
UTAH**11.**

CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input checked="" type="checkbox"/> DRILLING REPORT Report Date: 6/6/2009	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: _____

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

THE SUBJECT WELL LOCATION WAS PLACED ON PRODUCTION ON
06/05/2009 AT 11:00 AM. PLEASE REFER TO THE ATTACHED
CHRONOLOGICAL WELL HISTORY.

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
June 11, 2009

NAME (PLEASE PRINT) Sheila Upchego	PHONE NUMBER 435 781-7024	TITLE Regulatory Analyst
SIGNATURE N/A		DATE 6/11/2009

RECEIVED June 11, 2009

ROCKIES

Operation Summary Report

Well: NBU 921-27D2AS [BLUE]		Spud Conductor: 1/8/2009			Spud Date: 1/20/2009			
Project: UTAH		Site: UNTAH			Rig Name No: ENSIGN 139/139, PROPETRO/			
Event: DRILLING		Start Date: 1/19/2009			End Date:			
Active Datum: RKB @4,966.50ft (above Mean Sea Level)				UWI: 0/9/S/21/E/27/0/NENW/6/PM/N/640.00/W/0/1,747.00/0/0				
Date	Time Start-End	Duration (hr)	Phase	Code	Subco de2	P/U	MD From (ft)	Operation
1/20/2009	21:30 - 0:00	2.50	DRLSUR	02	A	P		DRILL F/ 40' TO 330' W/ AIR.
1/21/2009	0:00 - 12:00	12.00	DRLSUR	02		P		DRILL F/ 330' TO 1050' W/ HAMMER BIT.
	12:00 - 0:00	12.00	DRLSUR	02		P		DRILL F/ 1050' TO 1500' W/ HAMMER BIT.
1/22/2009	0:00 - 12:00	12.00	DRLSUR	02		P		DRILL F/ 1500' TO 1560' TRIP FOR BIT. (NO WATER)
	12:00 - 0:00	12.00	DRLSUR	02		P		DRILL F/ 1560' TO 1920' DRILLING W/ AIR (NO WATER)
1/23/2009	0:00 - 12:00	12.00	DRLSUR	02		P		DRILL F/ 1920' TO 2130' DRILLING W/ AIR.
	12:00 - 0:00	12.00	DRLSUR	02		P		DRILL F/ 2130' TO 2390' DRILLING W/ AIR.
1/24/2009	0:00 - 2:00	2.00	DRLSUR	02		P		DRILL F/ 2390' TO 2550' TD 1/24/2009
	2:00 - 13:00	11.00	DRLSUR	05		P		SURVEY 2490'= 1DEGREE. CIRC AND CONDITION HOLE, LDDS. RUN 60 JTS OF 9 5/8" CSG J-55 36# TO 2508'. RUN 200' OF 1" DOWN BACK SIDE, RIG DOWN AND MOVE RIG TO NBU 921-27C2D (SAME PAD) RIG UP CEMENTERS
	13:00 - 17:00	4.00	DRLSUR	15		P		PUMP 240 SX (163 BBLS) OF HI FILL LEAD 11#, 3.82 YD, 23 GAL/SK. PUMP 200 SX (41 BBLS) OF PREMIUM TAIL 15.8 #, 1.15YD, 5 GAL/SK. 30 BBLS OF LEAD CEMENT TO SURFACE. LIFT 490 PSI BUMP PLUG 700 PSI, FLOAT HELD. PUMP 125 SX OF TAIL DOWN 1". CEMENT TO SURFACE AND FELL. WAIT 1.5 HRS. PUMP 100 SX OF TAIL DOWN BACK SIDE. CEMENT TO SURFACE AND STAYED.
3/25/2009	17:00 - 18:00	1.00	MIRU	01	C	P		Skid rig, center over hole and level rig
	18:00 - 18:30	0.50	MIRU	13	A	P		Set BOP stack on DTO wellhead
	18:30 - 19:00	0.50	MIRU	13	A	S		Tried to install night cap on NBU 921-27C2D, did not fit
	19:00 - 20:00	1.00	MIRU	13	A	P		Nipple up BOPE
	20:00 - 22:00	2.00	MIRU	01	B	P		Rig up flare lines, surface equipment and build new flow line
	22:00 - 0:00	2.00	MIRU	07	C	S		Rig repair; tear apart and clean super choke and build new flow line. FMC installed night cap on 921-27C2D wellhead
3/26/2009	0:00 - 2:00	2.00	DRLPRO	07	A	S		Tear apart super choke, clean and check operation. Build flow line
	2:00 - 7:00	5.00	DRLPRO	13	C	P		Pressure test BOPE. Tested upper kelly valve, safety valve, pipe rams, inside and out side valves, blind ram, kill line, choke line, choke manifold, dart valve to 250 psi low for 5 minutes and 5000 psi high for 10 minutes. Tested annular to 250 psi low and 2500 psi high. Tested surface casing to 1500 psi high for 30 minutes. Tested super choke 250 psi low and 1500 psi high for 5 minutes. Function tested super choke, operation okay
	7:00 - 8:30	1.50	DRLPRO	07	A	S		Replace API ring gasket in rotating head assembly. Check valves and seats in both pumps
	8:30 - 12:00	3.50	DRLPRO	05	A	P		Magna Flux BHA, laid down 2 pony subs and pickup BHA
	12:00 - 14:30	2.50	DRLPRO	05	A	P		Pickup directional BHA and scribe directional tools
	14:30 - 18:30	4.00	DRLPRO	05	A	P		Magna Flux HWDP
	18:30 - 21:00	2.50	DRLPRO	05	A	P		TIH to float collar, tagged cement at 2386'
	21:00 - 22:00	1.00	DRLPRO	02	F	P		Drill shoe track, solid cement at 2436', float collar at 2478', shoe at 2521'

ROCKIES

Operation Summary Report

Well: NBU 921-27D2AS [BLUE]			Spud Conductor: 1/8/2009			Spud Date: 1/20/2009		
Project: UTAH			Site: UNTAH			Rig Name No: ENSIGN 139/139, PROPETRO/		
Event: DRILLING			Start Date: 1/19/2009			End Date:		
Active Datum: RKB @4,966.50ft (above Mean Sea Level)			UWI: 0/9/S/21/E/27/0/NENW/6/PM/N/640.00/W/0/1,747.00/0/0					
Date	Time Start-End	Duration (hr)	Phase	Code	Subco de2	P/U	MD From (ft)	Operation
	22:00 - 0:00	2.00	DRLPRO	02	D	P		Drill 2521' - 2700', WOB 12K, Pump #1 57 SPM, Pump #2 57 SPM, GPM 478, RPM 45, Motor RPM 67, SPP On/Off Bottom 1181/1085, Torque On/Off Bottom 5/2, Mud wt 8.4, Viscosity 26, Footage 179, FPH 89.5, Slide Data; WOB 7K, Pump #1 57 SPM, Pump #2 57 SPM, GPM 478, Motor RPM 67, (2632'-2647'), (2677'-2692'), BG 100/1800 Units, Connection 729/5132 Units. Spud well at 22:00 hours on 26 March 2009 w/ 7 7/8" bit
3/27/2009	0:00 - 4:00	4.00	DRLPRO	02	D	P		Drill 2700' - 2966', WOB 12K, Pump #1 57 SPM, Pump #2 57 SPM, GPM 478, RPM 45, Motor RPM 67, SPP On/Off Bottom 1181/1085, Torque On/Off Bottom 5/2, Mud wt 8.4, Viscosity 26, Footage 266, FPH 66.5, Slide Data; WOB 7K, Pump #1 57 SPM, Pump #2 57 SPM, GPM 478, Motor RPM 67, (2723'-2735'), (2765'-2778'), (2811'-2825'), (2857'-2872'), (2903'-2921'), BG 2300 Units, Connection 5113 Units.
	4:00 - 6:00	2.00	DRLPRO	07	B	S		Rig repair, lost communication with PLC
	6:00 - 11:00	5.00	DRLPRO	02	D	P		Drill 2966' - 3307', WOB 12K, Pump #1 57 SPM, Pump #2 57 SPM, GPM 478, RPM 45, Motor RPM 67, SPP On/Off Bottom 1181/1085, Torque On/Off Bottom 5/2, Mud wt 8.4, Viscosity 26, Footage 266, FPH 66.5, Slide Data; WOB 7K, Pump #1 57 SPM, Pump #2 57 SPM, GPM 478, Motor RPM 67, (2948'-2966'), (2990'-3007'), (3036'-3051'), (3081'-3094'), (3126'-3146'), (3171'-3191'), (3217'-3239'), (3262'-3278'), BG 100/1800 Units, Connection 729/6013 Units.
	11:00 - 11:30	0.50	DRLPRO	06	A	P		Rig service
	11:30 - 13:30	2.00	DRLPRO	07	A	S		Rig repair, hydraulic leak on iron derrick man
	13:30 - 0:00	10.50	DRLPRO	02	D	P		Drill 3307' - 3880', WOB 14K, Pump #1 57 SPM, Pump #2 57 SPM, GPM 478, RPM 45, Motor RPM 67, SPP On/Off Bottom 1428/1198, Torque On/Off Bottom 5/2, Mud wt 8.4, Viscosity 26, Footage 573, FPH 54.57, Slide Data; WOB 18K, Pump #1 57 SPM, Pump #2 57 SPM, GPM 478, Motor RPM 67, SPP On/Off Bottom 1271/1179, (3307'-3327'), (3352'-3371'), (3398'-3421'), (3443'-3468'), (3488'-3511'), (3534'-3559'), (3580'-3605'), (3629'-3659'), (3670'-3705'), (3718'-3745'), (3760'-3780'), (3807'-3832'), (3852'-3867'), (3898'-3908'), (3943'-3958'), (3989'-4004'), (4034'-4044'), (4081'-4091'), (4126'-4141'), BG Units, Connection Units.

ROCKIES

Operation Summary Report

Well: NBU 921-27D2AS [BLUE]			Spud Conductor: 1/8/2009			Spud Date: 1/20/2009		
Project: UTAH			Site: UNTAH			Rig Name No: ENSIGN 139/139, PROPETRO/		
Event: DRILLING			Start Date: 1/19/2009			End Date:		
Active Datum: RKB @4,966.50ft (above Mean Sea Level)				UWI: 0/9/S/21/E/27/0/NENW/6/PM/N/640.00/W/0/1,747.00/0/0				
Date	Time Start-End	Duration (hr)	Phase	Code	Subcode2	P/U	MD From (ft)	Operation
3/28/2009	0:00 - 12:30	12.50	DRLPRO	02	D	P		Drill 3880' - 4666', WOB 14K, Pump #1 57 SPM, Pump #2 57 SPM, GPM 478, RPM 45, Motor RPM 67, SPP On/Off Bottom 1428/1198, Torque On/Off Bottom 5/2, Mud wt 8.4, Viscosity 26, Footage 786, FPH 62.8 Slide Data; WOB 18K, Pump #1 57 SPM, Pump #2 57 SPM, GPM 478, Motor RPM 67, SPP On/Off Bottom 1271/1179, Slide Depths (3852'-3867'), (3898'-3908'), (3943'-3958'), (3989'-4004'), (4034'-4044'), (4081'-4091'), (4126'-4141'), (4173'-4188'), (4217'-4237'), (4265'-4290'), (4303'-4333'), (4352'-4377'), (4393'-4425'), (4444'-4474'), (4484'-4509'), (4533'-4558'), (4574'-4594'), (4625'-4645'), BG 400/1000 Units, Connection Units. 10'-15' Flare
	12:30 - 13:00	0.50	DRLPRO	06	A	P		Rig Service
	13:00 - 16:00	3.00	DRLPRO	02	D	P		Drill 4666' - 4846', WOB 14K, Pump #1 57 SPM, Pump #2 57 SPM, GPM 478, RPM 45, Motor RPM 67, SPP On/Off Bottom 1428/1198, Torque On/Off Bottom 5/2, Mud wt 8.4, Viscosity 26, Footage 180, FPH 60 Slide Data; WOB 22K, Pump #1 57 SPM, Pump #2 57 SPM, GPM 478, Motor RPM 67, SPP On/Off Bottom 1450/1367, Slide Depths (4666'-4685'), (4715'-4740'), (4755'-4775'), (4755'-4775'), BG Units, Connection Units. 3'-5' Flare
	16:00 - 18:00	2.00	DRLPRO	07	A	S		Rig repair, iron derrick man service tech working on iron derrick man
	18:00 - 0:00	6.00	DRLPRO	02	D	P		Drill 4846' - 5254', WOB 14K, Pump #1 57 SPM, Pump #2 57 SPM, GPM 478, RPM 45, Motor RPM 67, SPP On/Off Bottom 1608/1380, Torque On/Off Bottom 6/3, Mud wt 8.4, Viscosity 26, Footage 408, FPH 68 Slide Data; WOB 22K, Pump #1 57 SPM, Pump #2 57 SPM, GPM 478, Motor RPM 67, SPP On/Off Bottom 1450/1367, Slide Depths (4847'-4857'), (4938'-4953'), (4986'-5006'), (5030'-5040'), (5168'-5188'), (5207'-5222'), BG 400/1000 Units, Connection 898/6885 Units. 5'-10' Flare
3/29/2009	0:00 - 13:00	13.00	DRLPRO	02	D	P		Drill 5254' - 6280', WOB 14K, Pump #1 57 SPM, Pump #2 57 SPM, GPM 478, RPM 45, Motor RPM 67, SPP On/Off Bottom 1608/1380, Torque On/Off Bottom 6/3, Mud wt 8.4, Viscosity 26, Footage 1026, FPH 78.9 Slide Data; WOB 22K, Pump #1 57 SPM, Pump #2 57 SPM, GPM 478, Motor RPM 67, SPP On/Off Bottom 1450/1367, Slide Depths (5257'-5272'), (5345'-5355'), (5390'-5479'), (5570'-5580'), (5617'-5627'), (5710'-5715'), (5841'-5848'), (5932'-5949), (6024'-6036'), (6115'-6123'), BG 400/1000 Units, Connection 898/6885 Units. 5'-10' Flare
	13:00 - 13:30	0.50	DRLPRO	06	A	P		Rig Service

ROCKIES

Operation Summary Report

Well: NBU 921-27D2AS [BLUE]			Spud Conductor: 1/8/2009			Spud Date: 1/20/2009		
Project: UTAH			Site: UNTAH			Rig Name No: ENSIGN 139/139, PROPETRO/		
Event: DRILLING			Start Date: 1/19/2009			End Date:		
Active Datum: RKB @4,966.50ft (above Mean Sea Level)				UWI: 0/9/S/21/E/27/0/NENW/6/PM/N/640.00/W/0/1,747.00/0/0				
Date	Time Start-End	Duration (hr)	Phase	Code	Subcode2	P/U	MD From (ft)	Operation
	13:30 - 0:00	10.50	DRLPRO	02	D	P		Drill 6280' - 6794', WOB 14K, Pump #1 57 SPM, Pump #2 57 SPM, GPM 478, RPM 45, Motor RPM 67, SPP On/Off Bottom 1721/1547, Torque On/Off Bottom 8/2, Mud wt 9.1, Viscosity 37, Footage 514, FPH 48.9 Started mudding up at 6500' Slide Data; WOB 32K, Pump #1 57 SPM, Pump #2 57 SPM, GPM 478, Motor RPM 67, SPP On/Off Bottom 1514/1597, Slide Depths (6297'-6305'), (6388'-6394'), (6474'-6480'), (6568'-6573'), (6668'-6673'), (6748'-6758'), BG 600/900 Units, Connection 895/5258 Units. 3-5' Flare SHOWS: Depth Gas Units Mud Wt In/Out 5329'-5336' 4506 8.4/8.4 6916'-6924' 4513 9.1/9.1
3/30/2009	0:00 - 11:00	11.00	DRLPRO	02	D	P		Drill 6794' - 7379', WOB 14K, Pump #1 57 SPM, Pump #2 57 SPM, GPM 478, RPM 45, Motor RPM 67, SPP On/Off Bottom 1721/1547, Torque On/Off Bottom 8/2, Mud wt 9.1, Viscosity 37, Footage 514, FPH 48.9 REAMING EACH STAND ONCE Slide Data; WOB 25K, Pump #1 57 SPM, Pump #2 57 SPM, GPM 478, Motor RPM 67, SPP On/Off Bottom 1780/1620, Slide Depths (6845'-6859'), (6927'-6939'), (7018'-7027'), BG 600/900 Units, Connection 895/5258 Units. 3-5' Flare SHOWS: Depth Gas Units Mud Wt In/Out Rig Service
	11:00 - 11:30	0.50	DRLPRO	06	A	P		Drill 7379' - 7740', WOB 14K, Pump #1 57 SPM, Pump #2 57 SPM, GPM 478, RPM 45, Motor RPM 67, SPP On/Off Bottom 1721/1547, Torque On/Off Bottom 8/2, Mud wt 9.7, Viscosity 40, Footage 361, FPH 51.57 REAMING EACH STAND ONCE Slide Data; WOB 32K, Pump #1 57 SPM, Pump #2 57 SPM, GPM 478, Motor RPM 67, SPP On/Off Bottom 2200/2000, Slide Depths (7382'-7392'), (7477'-7489'), BG 600/900 Units, Connection 895/5258 Units. No Flare SHOWS: Depth Gas Units Mud Wt In/Out
	11:30 - 18:30	7.00	DRLPRO	02	D	P		Ream and work tight hole at 7740' -7650'
	18:30 - 19:00	0.50	DRLPRO	03	A	X		Drill 7740' - 7832', WOB 14K, Pump #1 57 SPM, Pump #2 57 SPM, GPM 478, RPM 45, Motor RPM 67, SPP On/Off Bottom 1721/1547, Torque On/Off Bottom 8/2, Mud wt 9.8, Viscosity 37, Footage 361, FPH 51.57 REAMING EACH STAND ONCE. LOST 80 BBLS MUD AT 7740'. Mix and pump 10% LCM sweep. Mix 5% LCM in system. Lost 40 bbls at 7914' Slide Data; WOB 32K, Pump #1 57 SPM, Pump #2 57 SPM, GPM 478, Motor RPM 67, SPP On/Off Bottom 2200/2050, Slide Depths (7477'-7489'), (7832'-7844'), BG 20/500 Units, Connection 68/1756 Units. No Flare SHOWS: Depth Gas Units Mud Wt In/Out
	19:00 - 20:30	1.50	DRLPRO	02	D	P		Ream and work tight hole at 7832' - 7740'. Raise w/m to 10 and viscosity to 44. Returns are light with sloughing shale
	20:30 - 20:30	0.00	DRLPRO	03	A	X		Ream and work tight hole 7832' - 7740'. Raise w/m to 10 and viscosity to 44. Returns were light with sloughing shale
3/31/2009	0:00 - 1:30	1.50	DRLPRO	03	A	X		

ROCKIES

Operation Summary Report

Well: NBU 921-27D2AS [BLUE]			Spud Conductor: 1/8/2009			Spud Date: 1/20/2009		
Project: UTAH			Site: UNTAH			Rig Name No: ENSIGN 139/139, PROPETRO/		
Event: DRILLING			Start Date: 1/19/2009			End Date:		
Active Datum: RKB @4,966.50ft (above Mean Sea Level)				UWI: 0/9/S/21/E/27/0/NENW/6/PM/N/640.00/W/0/1,747.00/0/0				
Date	Time Start-End	Duration (hr)	Phase	Code	Subco de2	P/U	MD From (ft)	Operation
	1:30 - 10:30	9.00	DRLPRO	02	D	P		Drill 7832' - 8193', WOB 14-17K, Pump #1 57 SPM, Pump #2 57 SPM, GPM 478, RPM 52, Motor RPM 67, SPP On/Off Bottom 2169/11922, Torque On/Off Bottom 18/9, Mud wt 10.4, Viscosity 41, Footage 361, FPH 40.1 REAMING EACH STAND ONCE. Slide Data; WOB 32K, Pump #1 57 SPM, Pump #2 57 SPM, GPM 478, Motor RPM 67, SPP On/Off Bottom 2200/2050, Slide Depths (7832'-7844'), BG 10/100 Units, Connection 44/1310 Units. No Flare SHOWS: Depth Gas Units Mud Wt In/Out 8028'-8034' 625 10.2/10.0
	10:30 - 11:00	0.50	DRLPRO	06	A	P		Rig service, greased blocks, wash pipe, and crown
	11:00 - 0:00	13.00	DRLPRO	02	D	P		Drill 8193' - 8583', WOB 14/15K, Pump #1 57 SPM, Pump #2 57 SPM, GPM 478, RPM 50, Motor RPM 67, SPP On/Off Bottom 2350/2120, Torque On/Off Bottom 10/17, Mud wt 11, Viscosity 445, Footage 390, FPH 30. REAMING EACH STAND ONCE. Slide Data; WOB 32K, Pump #1 57 SPM, Pump #2 57 SPM, GPM 478, Motor RPM 67, SPP On/Off Bottom 2200/2050, Slide Depths (8555'-8569'), BG 10/100 Units, Connection 44/1585 Units. No Flare SHOWS: Depth Gas Units Mud Wt In/Out 8255'-5260' 710 10.4/10.4 8450'-8458' 1585 10.8/10.8 8514'-8524' 1347 10.8/10.8 8532'-8544' 799 10.8/10.8
4/1/2009	0:00 - 6:00	6.00	DRLPRO	02	D	P		DRILL & SLIDE F/ 8583 TO 8657 - 74' @ 12.3 FPH W/ 11.1 PPG VIS 42 WELL SLEEPING FUILD LOST TOTAL 60 BBLS ALSO PUMPED 10% LCM SWEEP & RAISE LCM TO 7% IN THE ACTIVE SYSTEM - WOB 12/20 RPM 50 - MRPM 67 - PUMP PSI 2200 ON BTM - GPM 470 SLIDE F/ 8648 TO 8660
	6:00 - 15:30	9.50	DRLPRO	05	A	P		T.F.N.B & (THE FIRST 12 STANDS OFF BTM PULL F/ 80/ 100 K OVER STRING WT OF 180 K W/ BACK REAMING AND W/ PUMP THE NEXT 8 STANDS WITH OUT TOP DRIVE OR PUMP PULLED 60/80 OVER @ 6,927 GOT AROUND THE FIRST BEND THEN PULL OK THE REST WAY OUT OF HOLE. C/O BIT & MUD MOTOR & DIR TOOLS RIG SER
	15:30 - 17:00	1.50	DRLPRO	05	A	P		T.I.H TO CASING SHOE
	17:00 - 17:30	0.50	DRLPRO	06	A	P		WORK ON PUMPS
	17:30 - 21:00	3.50	DRLPRO	05	A	P		FILL PIPE @ CASING SHOE
	21:00 - 21:30	0.50	DRLPRO	07	A	P		SLIP & CUT DRILL LINE
	21:30 - 22:00	0.50	DRLPRO	05	A	P		CUT DRILL LINE
	22:00 - 0:00	2.00	DRLPRO	06	D	P		REPAIR TOP DRIVE
4/2/2009	0:00 - 1:30	1.50	DRLPRO	06	D	P		CONT. T.I.H
	1:30 - 4:00	2.50	DRLPRO	07	A	P		C/O SAVER SUB & CHECK TORQUE ON TOP DRIVE AGAINST MANUAL TORQUE GAUGE
	4:00 - 8:30	4.50	DRLPRO	05	A	P		CONT. T.I.H TO @ 8465
	8:30 - 10:00	1.50	DRLPRO	05	A	P		WASH TO BTM F/ 8465 TO 8657
	10:00 - 11:30	1.50	DRLPRO	05	A	P		DRILL-SLIDE F/ 8657 TO 8737 - 80' @ 26.6 FPH W/ 11.1 PPG VIS 45 - WOB 10/12 - RPM 50 - MRPM 70 - GPM 441- SLIDE F/ 8692 TO 8704
	11:30 - 12:30	1.00	DRLPRO	03	E	P		RIG SER
	12:30 - 15:30	3.00	DRLPRO	02	D	P		
	15:30 - 16:00	0.50	DRLPRO	06	A	P		

ROCKIES

Operation Summary Report

Well: NBU 921-27D2AS [BLUE]			Spud Conductor: 1/8/2009			Spud Date: 1/20/2009		
Project: UTAH			Site: UNTAH			Rig Name No: ENSIGN 139/139, PROPETRO/		
Event: DRILLING			Start Date: 1/19/2009			End Date:		
Active Datum: RKB @4,966.50ft (above Mean Sea Level)				UWI: 0/9/S/21/E/27/0/NENW/6/PM/N/640.00/W/0/1,747.00/0/0				
Date	Time Start-End	Duration (hr)	Phase	Code	Subcode2	P/U	MD From (ft)	Operation
	16:00 - 0:00	8.00	DRLPRO	02	D	P		DRILL SLIDE F/ 8737 - 9007- 270' @ 33.75 FPH W/ 11.0 PPG VIS 43 - WOB 16/18 RPM 50 - MRPM 75 - GPM 478 - SLIDE F/ 8916 - 8924
4/3/2009	0:00 - 12:00	12.00	DRLPRO	02	D	P		DRILL - SLIDE F/ 9007 TO 9371- 364' @ 30.3 FPH W/ 11.2 PPG VIS 45 - RPM 50 - MRPM 75 - GPM 470 SLIDE 9008 - 9023
	12:00 - 12:30	0.50	DRLPRO	06	A	P		RIG SER
	12:30 - 0:00	11.50	DRLPRO	02	D	P		DRILL- SLIDE F/ 9371 TO 9698 - 327' @ 28.4 FPH W/ 11.5 PPG VIS 45 - RPM 50 - MRPM 75/67 - GPM 470/420 WELL SEEPPING MUD RAISE LCM TO 14% TO CONTROL LOSES LOST 125 BBLs
4/4/2009	0:00 - 11:30	11.50	DRLPRO	02	D	P		DRILL-SLIDE F/ 9698 TO 9914 - 216' @ 18.7 FPH W/ 11.6 PPG VIS 45 - RPM 55 - MRPM 74 - GPM 470 - SLIDE 9736 - 9741 - 9746 - 9754
	11:30 - 12:00	0.50	DRLPRO	06	A	P		SER RIG
	12:00 - 0:00	12.00	DRLPRO	02	D	P		DRILL - SLIDE F/ 9914 TO 10141 - 227' @ 18.9 FPH W/ 11.6 PPG VIS 45 - RPM 55 - MRPM 74 - GPM 470
4/5/2009	0:00 - 1:30	1.50	DRLPRO	02	D	P		DRILL - SLIDE F/ 10141 TO 10160 - 19' @ 12.6 FPH W/ 11.6 PPG VIS 45 - RPM 50 - MRPM 74 - GPM 470
	1:30 - 2:30	1.00	DRLPRO	03	A	P		WORKING PIPE IN TIGHT HOLE W/ HIGH TORQUE @ 10,160
	2:30 - 8:30	6.00	DRLPRO	02	D	P		DRILL-SLIDE F/ 10160 TO 10231 - 71' @ 11.8 FPH W/ 11.7 PPG VIS 45 - RPM 50 - MRPM 74 - GPM 470
	8:30 - 10:00	1.50	DRLPRO	03	A	P		WORKING PIPE IN THIGT HOLE W/ HIGH TORQUE @ F/ 10,231 TO 10,141
	10:00 - 16:30	6.50	DRLPRO	02	D	P		DRILL SLIDE - F/ 10231 TO 10322 - 91' @ 14.0. FPH W/ 11.7 PPG VIS 45 - RPM 50 - MRPM 74 - GPM 470
	16:30 - 17:00	0.50	DRLPRO	06	A	P		SER RIG & RETORQUE SAVER SUB
	17:00 - 0:00	7.00	DRLPRO	02	D	P		DRILL-SLIDE F/ 10322 TO 10414 92' @ 13.1 FPH W/ 11.8 PPG VIS 45 - RPM 55 - MRPM 74 - GPM 470 - WOB 15/20 K & PICKING UP NEW DRILL PIPE. SINGLE JT CONN. WORK HIGH TORQUE & 100K OVER PULL ON CONN.
4/6/2009	0:00 - 4:00	4.00	DRLPRO	02	D	P		DRILL F/ 10414 TO 10459 - 45' @ 11.25 FPH W/ 11.8 PPG VIS 45 - GPM 470
	4:00 - 5:00	1.00	DRLPRO	03	A	P		WORK TIGHT HOLE & TORQUE ON CONN.
	5:00 - 6:00	1.00	DRLPRO	02	D	P		DRILL F/ 10459 TO 10470 TD WELL - 11' @ 11.0 FPH W/ 11.8 PPG VIS 45 - GPM 470 - 10470 MD - TVD 10115.
	6:00 - 7:00	1.00	DRLPRO	04	A	P		CIRC BTM UP
	7:00 - 10:00	3.00	DRLPRO	05	A	P		BACK REAM F/ 10470 TO 9507 - TORQUE - HOLE DRAG OVER PULL 160K STRING WT 195 K
	10:00 - 12:00	2.00	DRLPRO	04	A	P		CIRC OUT GAS ON CONN OF BACK REAMNG & AJUSTED TORQUE LIMITS ON IRON ROUGHNECK STILL WOUDN'T BREAK JT LAY DOWN TOP JT F/ DIFFERENCE BREAK IN STRING DRILL STRING STILL TIGHT.
	12:00 - 0:00	12.00	DRLPRO	05	A	P		T.O.H & BREAK OUT OVER TORQUE D.P IN STRING & COULDN'T BREAK JT WITH IRON ROUGHNECK & TRY TO BREAK W/ SCORPION MACHINE UNSESSFULL & SO SREWED IN TOP DRIVE & APPLIED REVERSE TOR F/ TOP DRIVE PLUS IRON ROUGH NECK TO BREAK OUT DRILL PIPE & CONT TRIP OUT THE HOLE & HAD TO CHANGE OUT TONG DIES SEVERAL TIMES. & ALSO GRABBER ON TOP DRIVE.

ROCKIES

Operation Summary Report

Well: NBU 921-27D2AS [BLUE]			Spud Conductor: 1/8/2009			Spud Date: 1/20/2009		
Project: UTAH			Site: UNTAH			Rig Name No: ENSIGN 139/139, PROPETRO/		
Event: DRILLING			Start Date: 1/19/2009			End Date:		
Active Datum: RKB @4,966.50ft (above Mean Sea Level)			UWI: 0/9/S/21/E/27/0/NENW/6/PM/N/640.00/W/0/1,747.00/0/0					
Date	Time Start-End	Duration (hr)	Phase	Code	Subco de2	P/U	MD From (ft)	Operation
4/7/2009	0:00 - 3:30	3.50	DRLPRO	05	A	P		CONT T.O.H L/D MWD - MUD MOTOR
	3:30 - 9:00	5.50	DRLPRO	08	A	P		HELD SAFETY MEETING R/ LOGGERS RUN TRIPLE COMBO @ 10,470
	9:00 - 9:30	0.50	DRLPRO	05	A	P		PULL WEAR BUSHING
	9:30 - 20:00	10.50	DRLPRO	11	B	P		HELD SAFETY MEETING & R/U CASING CREW & PRODUCTION STRING TO 10,434 SHOE DEPTH & F/C 10,391 - P/U LANDING JT PIPE STUCK BACK OFF LANDING JT & L/D & R/D CASING CREW
	20:00 - 21:00	1.00	DRLPRO	11	A	P		INSTALL ROTHEAD
	21:00 - 22:30	1.50	DRLPRO	04	A	P		CIRC OUT GAS HAD 30' FLARE
	22:30 - 0:00	1.50	DRLPRO	15	A	P		HELD SAFETY MEETING & CEMENT W/ HALLIBURTON TESTED LINES 5000 PSI PUMPED 10 BBLS WATER & 20 BBLS MUD CLEAN & 20 BBLS WATER & F/ LEAD 565 SKS @ 11.6 PPG YIELD 2.61 & F/ TAIL 1590 SKS 50/50 POZ @ 14.3 PPG YIELD 1.25 & DROP PLUG & DISPLACED W/ 162 BBLS WATER BUMP PLUG W/ 500 OVER FINAL CIRC PSI OFF 2670 - GOT NO CEMENT TO PIT. FULL RETURNS
4/8/2009	0:00 - 2:00	2.00	DRLPRO	15	A	P		FINSH CEMENT JOB W/ HALLIBUTON
	2:00 - 6:00	4.00	DRLPRO	13	A	P		NIPPLE DOWN STACK & SET SLIPS W/ 105K STRING WT & WASH & CLEAN PITS & RELEASED RIG @ 06:00 AM ON 4/8/2009

ROCKIES

Operation Summary Report

Well: NBU 921-27D2AS [BLUE]			Spud Conductor: 1/8/2009			Spud Date: 1/20/2009		
Project: UTAH			Site: UNTAH			Rig Name No: MILES-GRAY 1/1, SWABBCO 1/1		
Event: COMPLETION			Start Date: 5/15/2009			End Date: 6/4/2009		
Active Datum: RKB @4,966.50ft (above Mean Sea Level)				UWI: 0/9/S/21/E/27/0/NENW/6/PM/N/640.00/W/0/1,747.00/0/0				
Date	Time Start-End	Duration (hr)	Phase	Code	Subco de2	P/U	MD From (ft)	Operation
5/15/2009	11:00 - 17:00	6.00	COMP	31		P		MOVE RIG OVER FROM 27C-2D AND RUSU. ND WH. NU BOP. RU FLOOR. MU 3-7/8" BIT AND RIH AS MEAS AND PU 312-JTS 2-3/8" L-80 TBG. EOT AT 9862'. SDFN
5/18/2009	7:00 - 7:30	0.50	COMP	48		P		JSA- CLEANING LOCATION. CLEARING HAZARDOUS WORK AREAS.
	7:30 - 18:00	10.50	COMP	31		P		CONT MEAS AND PU 2-3/8" L-80 TBG AS RIH W/ 3-4/8" BIT. TAG AT 10,385' W/ 15' UP #329. RU PWR SWIVEL AND EST REV CIRC. C/O LIGHT CMT TO FLOAT COLLAR AT 10,393' (TBG SLM). DRLG ON FLOAT COLLAR FOR 2-HRS. GETTING PIECES OF STEEL BALL THEN START GETTING BEARING AND BIT TEETH. CIRC CLEAN. RD PWR SWIVEL. POOH AS LD 329-JTS 2-3/8" L-80 TBG. CONES GONE FROM BIT. RD FLOOR. ND BOP. NU FRAC VALVES. RDSU.
								NOTE: LEARNED THAT BAILOR HAD COME APART DOWNHOLE. NOT TO FLOAT COLLAR BUT C/O TO BTM OF BAILOR AT 10,393'.
								5/20/2009- P-TEST WELLBORE TO 7500 PSI. GOOD
5/21/2009	8:30 - 9:30	1.00	COMP	37	B	P		P/U RIH W/ 3-1/8 EXPEND, 23 GRM, 0.36" HOLE, 10382'-10386' 4 SPF, 90° PH, 16 HOLES. 10258'-10260' 4 SPF, 90° PH, 8 HOLES. 10226'-10228' 3 SPF, 120° PH, 6 HOLES. 10178'-10182' 3 SPF, 120° PH, 12 HOLES [42 HOLES] POOH FOUND BOTTOM GUN [10382'-10386'] DID NOT SHOOT, WAITED FOR HOT SHOT TO RESHOOT. 9:45-
5/26/2009	7:00 - 7:15	0.25	COMP	48		P		HSM, PRE FRAC SAFETY
	7:15 - 17:00	9.75	COMP	36	E	P		FRAC STG #1 IN MESAVERDE 10178'-10386' [42 HOLES]
								STG #1] WHP=1830#, BRK DN PERFS @ 3935#, INJ PSI=6463#, INJ RT=50.1, ISIP=3120#, FG=.73, PUMP'D 1541 BBLS SLK WTR W/ 57154# 30/50 MESH W/ 5000# RESIN COAT IN TAIL, ISIP=3050#, FG=.73, AR=44.4, AP=5673#, MR=55, MP=6788#, NPI=-70#, 38/42 CALC PERFS OPEN.
								STG #2] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN. SET CBP @ 10138', PERF MESAVERDE USING 3-3/8 EXPEND, 23 GRM, 0.36" HOLE. 10104'-10108' 3 SPF, 120° PH, 12 HOLES. 10052'-10054' 4 SPF, 90° PH, 8 HOLES. 9938'-9940' 3 SPF, 120° PH, 6 HOLES. 9898'-9902' 3 SPF, 120° PH, 12 HOLES.
								STG #2] WHP=2111#, BRK DN PERFS @ 4056#, INJ PSI=6562#, INJ RT=55.5, ISIP=2740#, FG=.70, PUMP'D 969 BBLS SLK WTR W/ 36607# 30/50 MESH W/ 5000# RESIN COAT IN TAIL, ISIP=3089#, FG=.74, AR=44.3, AP=5347#, MR=55.6, MP=6812#, NPI=349#, 31/38 CALC PERFS OPEN. SWIFN.

ROCKIES

Operation Summary Report

Well: NBU 921-27D2AS [BLUE]			Spud Conductor: 1/8/2009			Spud Date: 1/20/2009		
Project: UTAH			Site: UNTAH			Rig Name No: MILES-GRAY 1/1, SWABBCO 1/1		
Event: COMPLETION			Start Date: 5/15/2009			End Date: 6/4/2009		
Active Datum: RKB @4,966.50ft (above Mean Sea Level)				UWI: 0/9/S/21/E/27/0/NENW/6/PM/N/640.00/W/0/1,747.00/0/0				
Date	Time Start-End	Duration (hr)	Phase	Code	Subco de2	P/U	MD From (ft)	Operation
5/27/2009	7:00 - 18:00	11.00	COMP	36	E	P		STG #3] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN. SET CBP @ 9844', PERF MESAVERDE USING 3-3/8 EXPEND, 23 GRM, 0.36" HOLE. 9810'-9814' 4 SPF, 90° PH, 16 HOLES. 9788'-9790' 3 SPF, 120° PH, 6 HOLES. 9718'-9720' 3 SPF, 120° PH, 6 HOLES. 9696'-9700' 3 SPF, 120° PH, 12 HOLES. [40 HOLES]
								STG #3] WHP=2253#, BRK DN PERFS @ 3892#, INJ PSI=5705#, INJT RT=51.4, ISIP=2880#, FG=.73, PUMP'D 835 BBLS SLK WTR W/ 30509# 30/50 MESH W/ 5000# RESIN COAT IN TAIL, ISIP=3050#, FG=.74, AR=45.3, AP=5334#, MR=52.4, MP=6403#, NPI=170#, 34/40 CALC PERFS OPEN.
								STG #4] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN. SET CBP @ 9646', PERF MESAVERDE USING 3-3/8 EXPEND, 23 GRM, 0.36" HOLE. 9614'-9616' 4 SPF, 90° PH, 8 HOLES, 9576'-9580' 3 SPF, 120° PH, 12 HOLES, 9526'-9528' 4 SPF, 90° PH, 8 HOLES, 9490'-9494' 3 SPF, 120° PH, 12 HOLES [40 HOLES]
								STG #4] WHP=1780#, BRK DN PERFS @ 3632#, INJ PSI=5253#, INJT RT=51.6, ISIP=2695#, FG=.71, PUMP'D 1197 BBLS SLK WTR W/ 46913# 30/50 MESH W/ 5000# RESIN COAT IN TAIL, ISIP=2970#, FG=.74, AR=47.1, AP=4984#, MR=52.4, MP=5941#, NPI=275#, 39/40 CALC PERFS OPEN.
								STG #5] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN. SET CBP @ 9412', PERF MESAVERDE USING 3-3/8 EXPEND, 23 GRM, 0.36" HOLE. 9378'-9382' 4 SPF, 90° PH, 16 HOLES, 9320'-9322' 3 SPF, 120° PH, 6 HOLES, 9277'-9279' 3 SPF, 120° PH, 6 HOLES, 9200'-9204' 3 SPF, 120° PH, 12 HOLES [40 HOLES]
								STG #5] WHP=1911#, BRK DN PERFS @ 3031#, INJ PSI=5360#, INJT RT=52.6, ISIP=2270#, FG=.67, PUMP'D 1414 BBLS SLK WTR W/ 56957# 30/50 MESH W/ 5000# RESIN COAT IN TAIL, ISIP=2900#, FG=.74, AR=48.8, AP=4813#, MR=53.4, MP=5584#, NPI=630#, 39/40 CALC PERFS OPEN. SWIFN.

ROCKIES

Operation Summary Report

Well: NBU 921-27D2AS [BLUE]			Spud Conductor: 1/8/2009			Spud Date: 1/20/2009		
Project: UTAH			Site: UNTAH			Rig Name No: MILES-GRAY 1/1, SWABBCO 1/1		
Event: COMPLETION			Start Date: 5/15/2009			End Date: 6/4/2009		
Active Datum: RKB @4,966.50ft (above Mean Sea Level)			UWI: 0/9/S/21/E/27/0/NENW/6/PM/N/640.00/W/0/1,747.00/0/0					
Date	Time Start-End	Duration (hr)	Phase	Code	Subco de2	P/U	MD From (ft)	Operation
5/28/2009	-							<p>STG #6] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN. SET CBP @ 9412', PERF MESAVERDE USING 3-3/8 EXPEND, 23 GRM, 0.36" HOLE. 9082'-9086' 3 SPF, 120* PH, 12 HOLES. 9000'-9004' 3 SPF, 120* PH, 12 HOLES. 8946'-8950' 4 SPF, 90* PH, 16 HOLES [40 HOLES]</p> <p>STG #6] WHP=1720#, BRK DN PERFS @ 3583#, INJ PSI=5245#, INJT RT=50.1, ISIP=1760#, FG=.68, PUMP'D 1142 BBLS SLK WTR W/ 44385# 30/50 MESH W/ 5000# RESIN COAT IN TAIL, ISIP=3080#, FG=.77, AR=46.3, AP=4732#, MR=50.8, MP=5500#, NPI=800#, 36/40 CALC PERFS OPEN.</p> <p>STG #7] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN. SET CBP @ 9412', PERF MESAVERDE USING 3-3/8 EXPEND, 23 GRM, 0.36" HOLE. 8601'-8604' 4 SPF, 90* PH, 12 HOLES. 8500'-8504' 3 SPF, 120* PH, 12 HOLES. 8432'-8436' 2 SPF, 180* PH, 8 HOLES. 8364'-8368' 2 SPF, 180* PH, 8 HOLES. [40 HOLES]</p> <p>STG #7] WHP=1419#, BRK DN PERFS @ 2920#, INJ PSI=4832#, INJT RT=55, ISIP=1760#, FG=.63, PUMP'D 4039 BBLS SLK WTR W/ 154293# 30/50 MESH W/ 5000# RESIN COAT IN TAIL, ISIP=2530#, FG=.73, AR=53.6, AP=4513#, MR=56, MP=6143#, NPI=770#, 35/40 CALC PERFS OPEN.</p> <p>STG 8] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN. SET CBP @ 9412', PERF MESAVERDE USING 3-3/8 EXPEND, 23 GRM, 0.36" HOLE. 8236'-8240' 3 SPF, 120* PH, 12 HOLES. 8092'-8096' 3 SPF, 120* PH, 12 HOLES. 8008'-8014' 3 SPF, 120* PH, 18 HOLES.[42 HOLES]</p> <p>STG #8] WHP=1309#, BRK DN PERFS @ 2975#, INJ PSI=5000#, INJT RT=50, ISIP=1870#, FG=.66, PUMP'D 882 BBLS SLK WTR W/ 33678# 30/50 MESH W/ 5000# RESIN COAT IN TAIL, ISIP=2860#, FG=.78, AR=44.5, AP=4415#, MR=50.8, MP=5691#, NPI=990#, 29/42 CALC PERFS OPEN</p> <p>P/U RIH W/ HALIBURTON 8K CBP, SET CBP @ 7958' FOR TOP KILL. SWI. HSM RIG UP GUY OUT NDFRAC VALVE NUBOP TEST BOP = GOOD TEST TIH TALLYING 3 7/8 BIT POBS XN NIPPLE TAG 1ST PLUG @ 8010' WITH JNT 253 P/U SWIVEL WITH JNT 254 LOAD HOLE SWI SDFN</p>
6/3/2009	7:00 - 14:03	7.05	COMP	30	P			

ROCKIES

Operation Summary Report

Well: NBU 921-27D2AS [BLUE]			Spud Conductor: 1/8/2009			Spud Date: 1/20/2009		
Project: UTAH			Site: UNTAH			Rig Name No: MILES-GRAY 1/1, SWABBCO 1/1		
Event: COMPLETION			Start Date: 5/15/2009			End Date: 6/4/2009		
Active Datum: RKB @4,966.50ft (above Mean Sea Level)				UWI: 0/9/S/21/E/27/0/NENW/6/PM/N/640.00/W/0/1,747.00/0/0				
Date	Time Start-End	Duration (hr)	Phase	Code	Subco de2	P/U	MD From (ft)	Operation
6/4/2009	7:00 - 16:00	9.00	COMP	30		P		HSM BREAK CIRC DRILL PLUGS AS FOLLOWS #1 @ 8010' JNT 254 20 MIN 700# KICK CSG @ 50# #2 @ 8326' JNT 263 20 MIN 1050# KICK CSG @ 200# #3 @ 8699' JNT 275 15 MIN 1100# KICK CSG @ 250# #4 @ 9170' JNT 290 15 MIN 600# KICK CSG @ 300# #5 @ 9470' JNT 300 20 MIN 700# KICK CSG @ 450# #6 @ 9708' JNT 307 20 MIN 800# KICK CSG @ 550# #7 @ 9904' JNT 313 15 MIN 650# KICK CSG @ 550# #8 @ 10,195' JNT 322 15 MIN 700# KICK CSG @ 600# CLEAN OUT TO PBTD @ 10,393' WITH JNT 328 + 10' SUB CIRC HOLE CLEAN HUNG SWIVEL LD 17 JNTS ON TRAILER LTBG @ 9852' WITH 311 JNTS DROP BALL NDBOP NUWH PUMP OFF BIT @ 3600# HOOK UP FLOW BACK LINE RDMD TURN WELL OVER TO FLOW BACK CREW @ 50/2250# 7 AM FLBK REPORT: CP 3000#, TP 2025#, 20/64" CK, 35 BWPH, MEDIUM SAND, - GAS TTL BBLS RECOVERED: 4600 BBLS LEFT TO RECOVER: 7088
6/5/2009	7:00 -			33	A			7 AM FLBK REPORT: CP 2750#, TP 2075#, 20/64" CK, 45 BWPH, MEDIUM SAND, - GAS TTL BBLS RECOVERED: 3610 BBLS LEFT TO RECOVER: 8088
	7:00 -			33	A			WELL WENT ON SALE AT 1100 HR ON 6/5/2009 - FTP 2300#, CP 2550#, 500 MCFD, 40 BWPD, 20/64" CK
6/7/2009	7:00 -			33	A			7 AM FLBK REPORT: CP 2775#, TP 1850#, 20/64" CK, 25 BWPH, MEDIUM SAND, - GAS TTL BBLS RECOVERED: 5335 BBLS LEFT TO RECOVER: 6363
6/8/2009	7:00 -			33	A			7 AM FLBK REPORT: CP 2550#, TP 1750#, 20/64" CK, 20 BWPH, LIGHT SAND, - GAS TTL BBLS RECOVERED: 5905 BBLS LEFT TO RECOVER: 5793

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

AMENDED REPORT
(highlight changes)

FORM 8

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. TYPE OF WELL: <input type="checkbox"/> OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> DRY <input type="checkbox"/> OTHER _____										5. LEASE DESIGNATION AND SERIAL NUMBER: ST UO-1194A	
b. TYPE OF WORK: NEW WELL <input checked="" type="checkbox"/> HORIZ. LATS. <input type="checkbox"/> DEEP- EN <input type="checkbox"/> RE- ENTRY <input type="checkbox"/> DIFF. RESVR. <input type="checkbox"/> OTHER _____										6. IF INDIAN, ALLOTTEE OR TRIBE NAME	
2. NAME OF OPERATOR: KERR McGEE OIL & GAS ONSHORE LP										7. UNIT or CA AGREEMENT NAME UNIT #891008900A	
3. ADDRESS OF OPERATOR: 1368 S 1200 E CITY VERNAL STATE UT ZIP 84078										8. WELL NAME and NUMBER: NBU 921-27D2AS	
4. LOCATION OF WELL (FOOTAGES) AT SURFACE: 640'FNL, 1747'FWL										9. API NUMBER: 4304740202	
AT TOP PRODUCING INTERVAL REPORTED BELOW: <i>47FNL 349FWL</i>										10 FIELD AND POOL, OR WILDCAT NATURAL BUTTES	
AT TOTAL DEPTH: NW/NW SEC. 27, T9S, R21E 50'FNL, 350'FWL										11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NENW 27 9S 21E	
14. DATE SPUPPED: 1/8/2009		15. DATE T.D. REACHED: 4/6/2009		16. DATE COMPLETED: 6/5/2009		ABANDONED <input type="checkbox"/> READY TO PRODUCE <input checked="" type="checkbox"/>		17. ELEVATIONS (DF, RKB, RT, GL): 4953'GL			
18. TOTAL DEPTH: MD 10,470 TVD 10,117		19. PLUG BACK T.D.: MD 10,393 TVD 10,081/0040		20. IF MULTIPLE COMPLETIONS, HOW MANY? *				21. DEPTH BRIDGE MD PLUG SET: TVD			
22. TYPE ELECTRIC AND OTHER MECHANICAL LOGS RUN (Submit copy of each) <i>CBL-CCL-GR, ACTR/SD/DSN</i>						23. WAS WELL CORED? NO <input checked="" type="checkbox"/> YES <input type="checkbox"/> (Submit analysis) WAS DST RUN? NO <input checked="" type="checkbox"/> YES <input type="checkbox"/> (Submit report) DIRECTIONAL SURVEY? NO <input type="checkbox"/> YES <input checked="" type="checkbox"/> (Submit copy)					
24. CASING AND LINER RECORD (Report all strings set in well)											
HOLE SIZE	SIZE/GRADE	WEIGHT (#/ft.)	TOP (MD)	BOTTOM (MD)	STAGE CEMENTER DEPTH	CEMENT TYPE & NO. OF SACKS	SLURRY VOLUME (BBL)	CEMENT TOP **	AMOUNT PULLED		
20"	14" STL	36.7#		40		28					
12 1/4"	9 5/8 J-55	36#		2,550		665					
7 7/8"	4 1/2 I-80	11.6#		10,470		2155					
25. TUBING RECORD											
SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)			
2 3/8"	9,852										
26. PRODUCING INTERVALS <i>WS MWD per Unit P#</i>					27. PERFORATION RECORD						
FORMATION NAME	TOP (MD)	BOTTOM (MD)	TOP (TVD)	BOTTOM (TVD)	INTERVAL (Top/Bot - MD)	SIZE	NO. HOLES	PERFORATION STATUS			
(A) MESAVERDE	8,008	10,386			8,008 10,386	0.36	322	Open <input checked="" type="checkbox"/> Squeezed <input type="checkbox"/>			
(B)								Open <input type="checkbox"/> Squeezed <input type="checkbox"/>			
(C)								Open <input type="checkbox"/> Squeezed <input type="checkbox"/>			
(D)								Open <input type="checkbox"/> Squeezed <input type="checkbox"/>			
28. ACID, FRACTURE, TREATMENT, CEMENT SQUEEZE, ETC.											
DEPTH INTERVAL		AMOUNT AND TYPE OF MATERIAL									
8,008'-10,386'		PMP 12,019 BBLs SLICK H2O & 460,496# 30/50 OTTOWA SD									
29. ENCLOSED ATTACHMENTS:											
<input type="checkbox"/> ELECTRICAL/MECHANICAL LOGS <input type="checkbox"/> SUNDAY NOTICE FOR PLUGGING AND CEMENT VERIFICATION				<input type="checkbox"/> GEOLOGIC REPORT <input type="checkbox"/> CORE ANALYSIS				<input type="checkbox"/> DST REPORT <input type="checkbox"/> OTHER			
<i>RECEIVED</i>										30. WELL STATUS: PROD	

31. INITIAL PRODUCTION

INTERVAL A (As shown in item #26)

DATE FIRST PRODUCED: 6/5/2009	TEST DATE: 6/9/2009	HOURS TESTED: 24	TEST PRODUCTION RATES: →	OIL – BBL: 0	GAS – MCF: 2,370	WATER – BBL: 96	PROD. METHOD: FLOWING			
CHOKE SIZE: 20/64	TBG. PRESS. 1,750	CSG. PRESS. 2,550	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL: 0	GAS – MCF: 2,370	WATER – BBL: 96	INTERVAL STATUS: PROD

INTERVAL B (As shown in item #26)

DATE FIRST PRODUCED:	TEST DATE:	HOURS TESTED:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:			
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

INTERVAL C (As shown in item #26)

DATE FIRST PRODUCED:	TEST DATE:	HOURS TESTED:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:			
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

INTERVAL D (As shown in item #26)

DATE FIRST PRODUCED:	TEST DATE:	HOURS TESTED:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:			
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

32. DISPOSITION OF GAS (Sold, Used for Fuel, Vented, Etc.)

SOLD

33. SUMMARY OF POROUS ZONES (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, lime tool open, flowing and shut-in pressures and recoveries.

34. FORMATION (Log) MARKERS:

Formation	Top (MD)	Bottom (MD)	Descriptions, Contents, etc.	Name	Top (Measured Depth)
GREEN RIVER BIRDS NEST MAHOGANY WASATCH MESAVERDE	1,564 1,879 2,391 5,213 8,001	7,998 10,447			

35. ADDITIONAL REMARKS (Include plugging procedure)

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records.

NAME (PLEASE PRINT) SHEILA WOPSOCKTITLE REGULATORY ANALYSTSIGNATURE DATE 7/31/2009

This report must be submitted within 30 days of

- completing or plugging a new well
- drilling horizontal laterals from an existing well bore
- recompleting to a different producing formation
- reentering a previously plugged and abandoned well
- significantly deepening an existing well bore below the previous bottom-hole depth
- drilling hydrocarbon exploratory holes, such as core samples and stratigraphic tests

* ITEM 20: Show the number of completions if production is measured separately from two or more formations.

** ITEM 24: Cement Top – Show how reported top(s) of cement were determined (circulated (CIR), calculated (CAL), cement bond log (CBL), temperature survey (TS)).

Send to: Utah Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
Box 145801
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Scientific Drilling
Rocky Mountain Operations

END OF WELL REPORT

Prepared For:

Kerr McGee Oil & Gas Onshore LP
NBU 921-27D~~2~~AS
NBU 921-27C Pad
Ensign 139
Uintah County, UT

Prepared By:

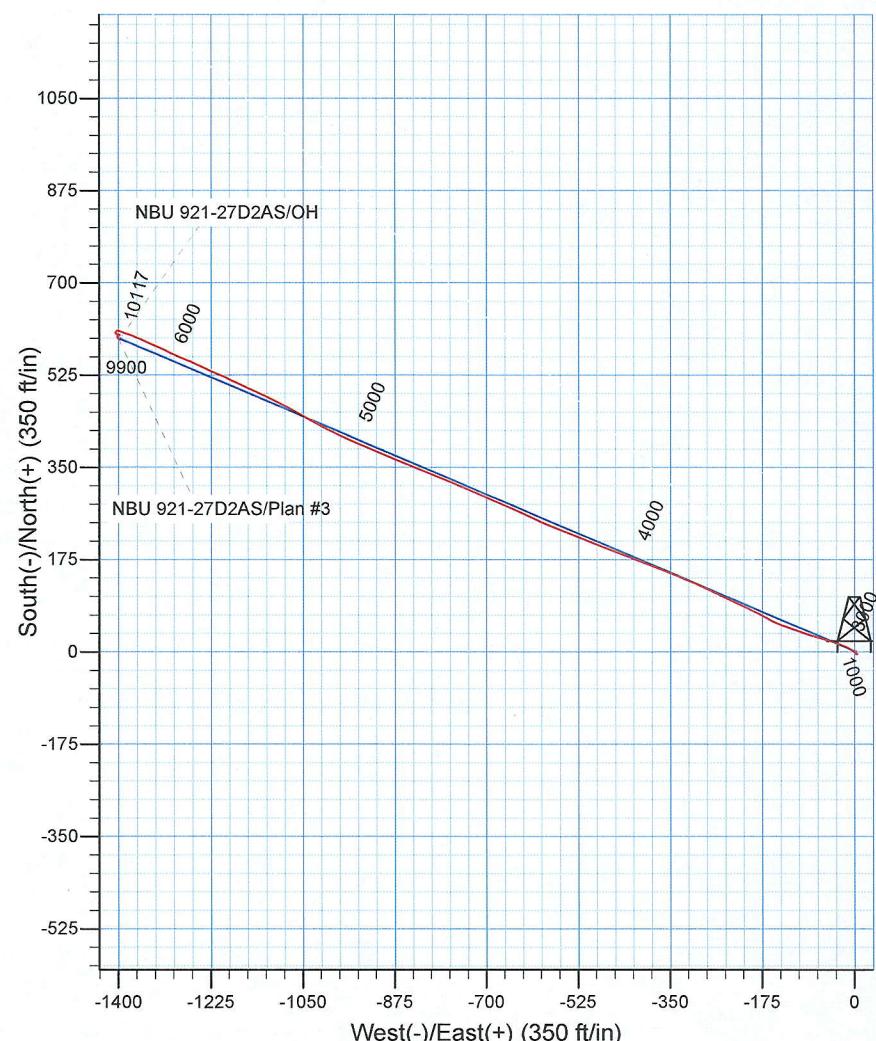
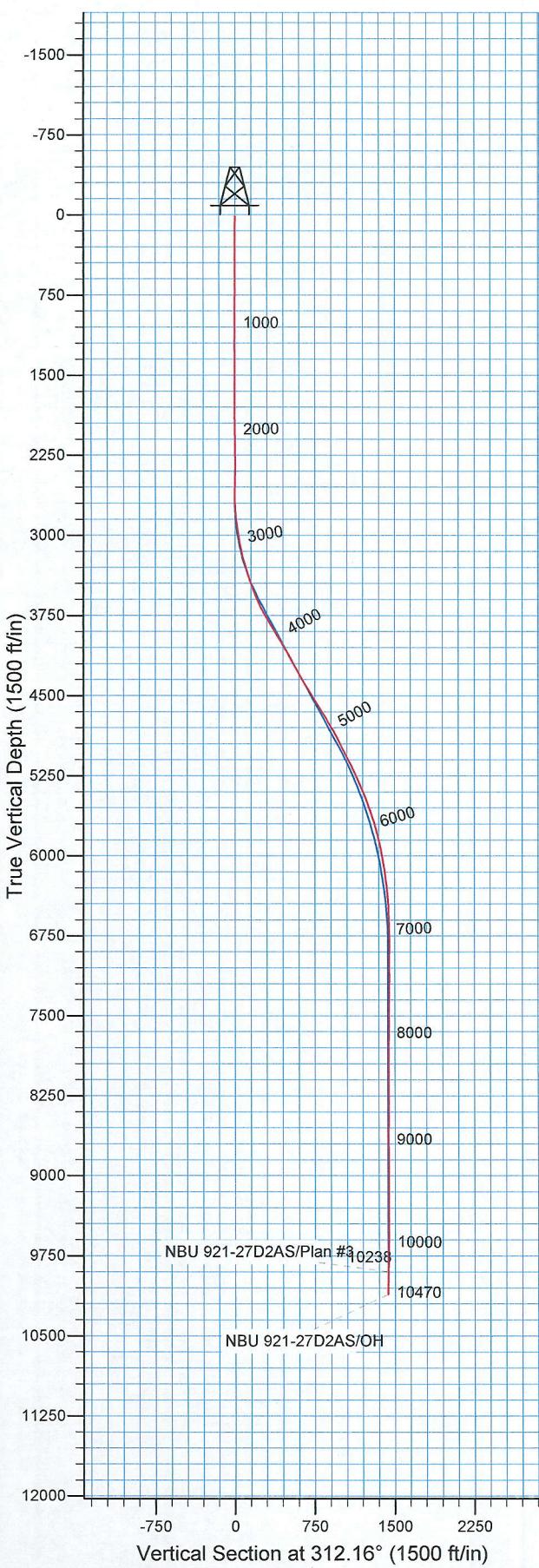
*Julie Cruse, Rockies Region Engineer
Scientific Drilling
Rocky Mountain Region*

Scientific Drilling International
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- 2. Daily Drilling Reports**
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- 4. Graphical Job History**
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WELL DETAILS: NBU 921-27D2AS

Ground Level GL 4951' & RKB 13' @ 4964.00ft (Ensign 139)
 Northing 617648.08 Easting 2548823.00 Latitude 40° 0' 45.360 N Longitude 109° 32' 25.520 W

REFERENCE INFORMATION

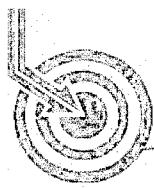
Co-ordinate (N/E) Reference: Well NBU 921-27D2AS, True North
 Vertical (TVD) Reference: GL 4951' & RKB 13' @ 4964.00ft (Ensign 139)
 Section (VS) Reference: Slot - (0.00N, 0.00E)
 Measured Depth Reference: GL 4951' & RKB 13' @ 4964.00ft (Ensign 139)
 Calculation Method: Minimum Curvature
 Local North: True
 Location: Sec 27 T9S R21E

PROJECT DETAILS: Uintah County, UT NAD27

Geodetic System: US State Plane 1927 (Exact solution)
 Datum: NAD 1927 (NADCON CONUS)
 Ellipsoid: Clarke 1866
 Zone: Utah Central 4302

Design: OH (NBU 921-27D2AS/OH)

Created By: Julie Cruse Date: 2009-04-21



Scientific Drilling
Rocky Mountain Operations

Kerr McGee Oil and Gas Onshore

LP

Uintah County, UT NAD27
NBU 921-27C Pad
NBU 921-27D2AS
OH

Design: OH

Standard Survey Report

21 April, 2009

Scientific Drilling

Survey Report

Company: Kerr McGee Oil and Gas Onshore LP
Project: Uintah County, UT NAD27
Site: NBU 921-27C Pad
Well: NBU 921-27D2AS
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well NBU 921-27D2AS
TVD Reference: GL 4951' & RKB 13' @ 4964.00ft (Ensign 139)
MD Reference: GL 4951' & RKB 13' @ 4964.00ft (Ensign 139)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM 2003.16 Multi User Db

Project	Uintah County, UT NAD27		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Utah Central 4302		

Site	NBU 921-27C Pad, Sec 27 T9S R21E				
Site Position:		Northing:	617,657.58 ft	Latitude:	40° 0' 45.450 N
From:	Lat/Long	Easting:	2,548,839.91 ft	Longitude:	109° 32' 25.300 W
Position Uncertainty:	0.00 ft	Slot Radius:	in	Grid Convergence:	1.26 °

Well	NBU 921-27D2AS, 640' FNL 1747' FWL				
Well Position	+N/S 0.00 ft	Northing:	617,648.08 ft	Latitude:	40° 0' 45.360 N
	+E/W 0.00 ft	Easting:	2,548,823.00 ft	Longitude:	109° 32' 25.520 W
Position Uncertainty	0.00 ft	Wellhead Elevation:	ft	Ground Level:	4,951.00 ft

Wellbore	OH	Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
			IGRF2005-10	2009-03-24	11.36	65.93	52,578

Design	OH	Audit Notes:	
Version:	1.0	Phase:	ACTUAL
Vertical Section:		Depth From (TVD) (ft)	+N/S (ft)
		0.00	0.00
			+E/W (ft)
			0.00
			Direction (°)
			312.16

Survey Program	Date	2009-04-21
From (ft)	To (ft)	Survey (Wellbore)
113.00	2,370.00	Survey #1 (OH)
2,615.00	10,470.00	Survey #2 - 7 7/8" Hole (OH)
		Tool Name
		NS-GYRO-MS
		MWD SDI
		Description
		North sensing gyrocompassing m/s
		MWD - Standard ver 1.0.1

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/S (ft)	+E/W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
13.00	0.00	0.00	13.00	0.00	0.00	0.00	0.00	0.00	0.00
113.00	0.75	95.89	113.00	-0.07	0.65	-0.53	0.75	0.75	0.00
213.00	0.25	113.90	212.99	-0.22	1.50	-1.26	0.52	-0.50	18.01
313.00	0.75	137.91	312.99	-0.80	2.14	-2.12	0.53	0.50	24.01
413.00	0.00	0.00	412.99	-1.28	2.58	-2.77	0.75	-0.75	0.00
513.00	0.00	0.00	512.99	-1.28	2.58	-2.77	0.00	0.00	0.00
613.00	0.50	227.94	612.98	-1.57	2.25	-2.73	0.50	0.50	0.00
713.00	0.50	149.95	712.98	-2.24	2.15	-3.10	0.63	0.00	-77.99
813.00	0.75	171.95	812.98	-3.27	2.46	-4.02	0.34	0.25	22.00
913.00	0.50	54.97	912.97	-3.67	2.91	-4.62	1.07	-0.25	-116.98
1,013.00	0.50	73.98	1,012.97	-3.30	3.68	-4.94	0.17	0.00	19.01
1,113.00	0.75	129.98	1,112.96	-3.60	4.61	-5.83	0.63	0.25	56.00

Scientific Drilling

Survey Report

Company: Kerr McGee Oil and Gas Onshore LP
Project: Uintah County, UT NAD27
Site: NBU 921-27C Pad
Well: NBU 921-27D2AS
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well NBU 921-27D2AS
TVD Reference: GL 4951' & RKB 13' @ 4964.00ft (Ensign 139)
MD Reference: GL 4951' & RKB 13' @ 4964.00ft (Ensign 139)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM 2003.16 Multi User Db

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/S (ft)	+E/W (ft)	Vertical Section (ft)	Dogleg Rate (/100ft)	Build Rate (/100ft)	Turn Rate (/100ft)
1,213.00	0.50	246.00	1,212.96	-4.20	4.71	-6.31	1.07	-0.25	116.02
1,313.00	0.50	344.00	1,312.96	-3.95	4.19	-5.76	0.75	0.00	98.00
1,413.00	0.50	140.06	1,412.96	-3.87	4.35	-5.82	0.98	0.00	156.06
1,513.00	0.50	255.07	1,512.95	-4.32	4.21	-6.02	0.84	0.00	115.01
1,613.00	0.75	308.08	1,612.95	-4.02	3.27	-5.13	0.60	0.25	53.01
1,713.00	0.75	36.09	1,712.94	-3.09	3.14	-4.40	1.04	0.00	88.01
1,813.00	0.75	288.10	1,812.94	-2.36	2.91	-3.74	1.21	0.00	-107.99
1,913.00	0.50	320.11	1,912.93	-1.82	2.00	-2.71	0.42	-0.25	32.01
2,013.00	1.00	333.11	2,012.92	-0.71	1.33	-1.46	0.53	0.50	13.00
2,113.00	0.75	276.13	2,112.91	0.14	0.28	-0.12	0.86	-0.25	-56.98
2,213.00	0.50	288.09	2,212.91	0.35	-0.78	0.81	0.28	-0.25	11.96
2,313.00	0.50	331.05	2,312.91	0.86	-1.41	1.62	0.37	0.00	42.96
2,370.00	0.75	95.01	2,369.90	1.05	-1.16	1.56	1.95	0.44	217.47
Last Multishot Gyro Survey									
2,615.00	0.64	121.36	2,614.89	0.20	1.61	-1.06	0.14	-0.04	10.76
First SDI MWD Survey									
2,705.00	2.64	290.03	2,704.86	0.64	0.09	0.37	3.63	2.22	187.41
2,796.00	4.95	302.93	2,795.66	3.50	-5.17	6.18	2.69	2.54	14.18
2,886.00	7.14	295.99	2,885.15	8.06	-13.46	15.39	2.56	2.43	-7.71
2,977.00	10.27	294.23	2,975.09	13.87	-25.95	28.54	3.45	3.44	-1.93
3,067.00	11.60	286.35	3,063.46	19.71	-41.95	44.32	2.22	1.48	-8.76
3,158.00	13.52	286.66	3,152.28	25.33	-60.92	62.16	2.11	2.11	0.34
3,248.00	17.13	286.99	3,239.06	32.23	-83.68	83.66	4.01	4.01	0.37
3,339.00	18.85	289.91	3,325.61	41.15	-110.32	109.40	2.13	1.89	3.21
3,429.00	20.67	289.65	3,410.31	51.44	-138.95	137.53	2.02	2.02	-0.29
3,520.00	21.86	299.07	3,495.14	65.08	-168.90	168.88	3.97	1.31	10.35
3,610.00	22.58	295.88	3,578.46	80.76	-199.09	201.79	1.56	0.80	-3.54
3,701.00	26.83	295.69	3,661.11	97.30	-233.33	238.27	4.67	4.67	-0.21
3,791.00	30.74	294.94	3,739.97	115.81	-272.50	279.73	4.36	4.34	-0.83
3,882.00	32.95	293.35	3,817.27	135.43	-316.32	325.38	2.60	2.43	-1.75
3,972.00	33.34	290.78	3,892.63	153.90	-361.92	371.58	1.62	0.43	-2.86
4,063.00	33.00	291.45	3,968.80	171.84	-408.36	418.04	0.55	-0.37	0.74
4,153.00	31.77	290.77	4,044.80	189.20	-453.33	463.03	1.43	-1.37	-0.76
4,244.00	30.21	291.70	4,122.81	206.17	-497.00	506.79	1.79	-1.71	1.02
4,334.00	30.32	291.76	4,200.55	222.96	-539.14	549.30	0.13	0.12	0.07
4,425.00	30.43	292.31	4,279.06	240.22	-581.79	592.50	0.33	0.12	0.60
4,515.00	31.62	295.61	4,356.18	259.07	-624.16	636.56	2.31	1.32	3.67
4,606.00	32.73	293.45	4,433.21	279.18	-668.24	682.73	1.76	1.22	-2.37
4,696.00	32.75	293.11	4,508.91	298.41	-712.95	728.78	0.21	0.02	-0.38
4,787.00	34.55	293.26	4,584.66	318.27	-759.30	776.47	1.98	1.98	0.16
4,877.00	33.83	292.19	4,659.11	337.81	-805.95	824.16	1.04	-0.80	-1.19
4,967.00	31.61	291.48	4,734.82	355.91	-851.10	869.78	2.50	-2.47	-0.79
5,058.00	31.43	293.98	4,812.40	374.28	-894.97	914.63	1.45	-0.20	2.75
5,148.00	28.34	291.89	4,890.42	391.79	-936.24	956.98	3.62	-3.43	-2.32
5,239.00	28.91	295.57	4,970.31	409.34	-976.13	998.32	2.04	0.63	4.04
5,329.00	28.37	297.95	5,049.30	428.75	-1,014.64	1,039.90	1.40	-0.60	2.64
5,420.00	27.46	299.26	5,129.71	449.14	-1,052.05	1,081.31	1.21	-1.00	1.44
5,510.00	25.21	298.30	5,210.36	468.37	-1,087.03	1,120.15	2.54	-2.50	-1.07
5,600.00	24.57	295.62	5,292.01	485.55	-1,120.78	1,156.70	1.44	-0.71	-2.98
5,691.00	24.30	293.74	5,374.86	501.27	-1,154.98	1,192.60	0.90	-0.30	-2.07
5,781.00	22.31	295.70	5,457.51	516.13	-1,187.33	1,226.56	2.37	-2.21	2.18
5,872.00	20.65	292.98	5,542.19	529.89	-1,217.67	1,258.28	2.13	-1.82	-2.99
5,962.00	19.47	295.88	5,626.73	542.63	-1,245.77	1,287.67	1.71	-1.31	3.22
6,053.00	16.85	292.73	5,713.19	554.35	-1,271.59	1,314.67	3.07	-2.88	-3.46



Scientific Drilling

Survey Report

Company: Kerr McGee Oil and Gas Onshore LP
Project: Uintah County, UT NAD27
Site: NBU 921-27C Pad
Well: NBU 921-27D2AS
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well NBU 921-27D2AS
TVD Reference: GL 4951' & RKB 13' @ 4964.00ft (Ensign 139)
MD Reference: GL 4951' & RKB 13' @ 4964.00ft (Ensign 139)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM 2003.16 Multi User Db

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/S (ft)	+E/W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate ('/100ft)	Turn Rate ('/100ft)
6,143.00	14.86	293.95	5,799.77	564.08	-1,294.17	1,337.94	2.24	-2.21	1.36
6,234.00	13.29	296.32	5,888.03	573.45	-1,314.21	1,359.08	1.84	-1.73	2.60
6,324.00	11.73	292.57	5,975.89	581.55	-1,331.93	1,377.66	1.95	-1.73	-4.17
6,415.00	10.32	294.12	6,065.21	588.43	-1,347.91	1,394.12	1.58	-1.55	1.70
6,505.00	8.68	293.90	6,153.97	594.48	-1,361.48	1,408.24	1.82	-1.82	-0.24
6,596.00	7.22	291.84	6,244.10	599.39	-1,373.07	1,420.12	1.63	-1.60	-2.26
6,686.00	6.11	287.44	6,333.49	602.93	-1,382.89	1,429.78	1.36	-1.23	-4.89
6,777.00	4.60	295.06	6,424.09	605.93	-1,390.81	1,437.66	1.83	-1.66	8.37
6,867.00	3.21	288.61	6,513.88	608.26	-1,396.47	1,443.42	1.62	-1.54	-7.17
6,958.00	1.84	282.50	6,604.79	609.39	-1,400.31	1,447.03	1.53	-1.51	-6.71
7,048.00	0.74	249.96	6,694.77	609.50	-1,402.27	1,448.55	1.42	-1.22	-36.16
7,138.00	0.59	232.33	6,784.76	609.02	-1,403.18	1,448.91	0.28	-0.17	-19.59
7,229.00	0.66	223.80	6,875.75	608.35	-1,403.91	1,449.01	0.13	0.08	-9.37
7,320.00	0.98	192.16	6,966.74	607.22	-1,404.44	1,448.63	0.60	0.35	-34.77
7,410.00	1.13	246.70	7,056.73	606.11	-1,405.42	1,448.62	1.08	0.17	60.60
7,500.00	0.17	248.82	7,146.72	605.71	-1,406.36	1,449.04	1.07	-1.07	2.36
7,591.00	0.39	157.20	7,237.72	605.38	-1,406.36	1,448.82	0.47	0.24	-100.68
7,681.00	0.71	158.11	7,327.72	604.58	-1,406.04	1,448.04	0.36	0.36	1.01
7,772.00	0.80	150.49	7,418.71	603.50	-1,405.51	1,446.93	0.15	0.10	-8.37
7,862.00	0.47	76.06	7,508.71	603.04	-1,404.85	1,446.13	0.90	-0.37	-82.70
7,953.00	0.61	79.00	7,599.70	603.23	-1,404.01	1,445.63	0.16	0.15	3.23
8,044.00	0.60	97.58	7,690.70	603.26	-1,403.06	1,444.95	0.21	-0.01	20.42
8,134.00	0.57	118.16	7,780.69	602.98	-1,402.20	1,444.13	0.23	-0.03	22.87
8,225.00	0.48	96.20	7,871.69	602.73	-1,401.42	1,443.38	0.24	-0.10	-24.13
8,315.00	0.57	151.72	7,961.69	602.29	-1,400.83	1,442.65	0.55	0.10	61.69
8,406.00	0.71	160.48	8,052.68	601.36	-1,400.43	1,441.73	0.19	0.15	9.63
8,496.00	0.60	149.19	8,142.68	600.43	-1,400.00	1,440.79	0.19	-0.12	-12.54
8,587.00	0.14	180.97	8,233.67	599.91	-1,399.76	1,440.26	0.53	-0.51	34.92
8,678.00	0.23	48.63	8,324.67	599.92	-1,399.63	1,440.17	0.37	0.10	-145.43
8,769.00	0.11	58.22	8,415.67	600.09	-1,399.41	1,440.12	0.14	-0.13	10.54
8,859.00	0.27	93.40	8,505.67	600.12	-1,399.13	1,439.93	0.21	0.18	39.09
8,950.00	0.52	87.23	8,596.67	600.13	-1,398.50	1,439.47	0.28	0.27	-6.78
9,040.00	0.44	357.85	8,686.67	600.49	-1,398.11	1,439.43	0.75	-0.09	-99.31
9,131.00	0.31	337.21	8,777.67	601.07	-1,398.22	1,439.89	0.20	-0.14	-22.68
9,221.00	0.35	314.28	8,867.66	601.49	-1,398.51	1,440.39	0.15	0.04	-25.48
9,312.00	0.42	296.83	8,958.66	601.83	-1,399.00	1,440.99	0.15	0.08	-19.18
9,402.00	0.37	269.92	9,048.66	601.98	-1,399.59	1,441.52	0.21	-0.06	-29.90
9,493.00	0.20	200.90	9,139.66	601.83	-1,399.94	1,441.68	0.39	-0.19	-75.85
9,584.00	0.47	216.68	9,230.66	601.38	-1,400.22	1,441.59	0.31	0.30	17.34
9,674.00	0.71	216.95	9,320.65	600.64	-1,400.78	1,441.50	0.27	0.27	0.30
9,765.00	0.89	227.95	9,411.64	599.72	-1,401.64	1,441.52	0.26	0.20	12.09
9,855.00	0.78	206.79	9,501.63	598.70	-1,402.43	1,441.43	0.36	-0.12	-23.51
9,946.00	0.87	184.27	9,592.63	597.46	-1,402.76	1,440.84	0.37	0.10	-24.75
10,037.00	0.81	143.11	9,683.62	596.26	-1,402.43	1,439.79	0.65	-0.07	-45.23
10,127.00	0.93	136.11	9,773.61	595.22	-1,401.54	1,438.43	0.18	0.13	-7.78
10,218.00	0.81	149.05	9,864.60	594.14	-1,400.70	1,437.08	0.25	-0.13	14.22
10,308.00	0.89	119.44	9,954.59	593.25	-1,399.76	1,435.79	0.49	0.09	-32.90
10,411.00	0.60	104.79	10,057.58	592.72	-1,398.54	1,434.53	0.33	-0.28	-14.22
10,470.00	0.60	104.79	10,116.57	592.56	-1,397.95	1,433.98	0.00	0.00	0.00

Projection to TD



Scientific Drilling

Survey Report

Company: Kerr McGee Oil and Gas Onshore LP
Project: Uintah County, UT NAD27
Site: NBU 921-27C Pad
Well: NBU 921-27D2AS
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well NBU 921-27D2AS
TVD Reference: GL 4951' & RKB 13' @ 4964.00ft (Ensign 139)
MD Reference: GL 4951' & RKB 13' @ 4964.00ft (Ensign 139)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM 2003.16 Multi User Db

Targets

Target Name

- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/S	+E/W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)		
NBU 621-27D2AS PBHL	0.00	0.00	9,900.00	595.00	-1,399.65	618,212.27	2,547,410.65	40° 0' 51.240 N	109° 32' 43.510 W
- actual wellpath misses target center by 1.46ft at 10253.40ft MD (9900.00 TVD, 593.74 N, -1400.40 E)									
- Circle (radius 25.00)									

Design Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			Comment
		+N/S (ft)	+E/W (ft)		
2,370.00	2,369.90	1.05	-1.16	Last Multishot Gyro Survey	
2,615.00	2,614.89	0.20	1.61	First SDI MWD Survey	
10,470.00	10,116.57	592.56	-1,397.95	Projection to TD	

Checked By: _____

Approved By: _____

Date: _____



Scientific Drilling
Rocky Mountain Operations

JOB NO.:	42DEF0903135	Report Time:	2400	1 of 14
COMPANY:	Kerr McGee Oil and Gas Onshore LP	API JOB #	43-047-40202	
LOCATION:	NBU 921-27C Pad	WORK ORDER#	136305	
RIG NAME:	Ensign 139	FIELD:	Natural Buttes Unit	
STATE:	Utah	Township:	Sec 27 T9S R21E	
COUNTY:	Uintah	SECT RANGE:		Rocky Mountain
WELL NAME:	NBU 921-27D2AS			

From Wednesday, March 25, 2009 at 0000 to Wednesday, March 25, 2009 at 2400

DRILLING SUMMARY				Drilling Parameters							
Start Depth	0.00	Rotary Hours	0.00	WOB	0	Pick UP	0	Slack Off	0	SPM	
End Depth	0.00	Circulating Hours	0.00	RAB	0	SPP	0	FlowRate	0 - 0	0	
Total Drilled:	0.00	Avg. Total ROP:	NA	Mud Data							
Total Rotary Drilled:	0.00	Avg. Rotary ROP:	NA	Type			PV	0	SOLID	0	
Total Drilled Sliding:	0.00	Avg. Slide ROP:	NA	Weight	0	GAS	0	YP	0	BHT°	0
Slide Hours:	0.00	Percent Rotary:	NA	Viscosity	0	SAND	0	PH	0	Flow T°	0
Below Rotary Hrs.	0.00	Percent Slide:	NA	Chlorides	0	WL	0			Oil %	0
PERSONNEL				cASING				BHA			
Lead Directional :	Phillip Alvarado			Size	Lb/ft	Set Depth	N/A Signature:				
Second Directional :	Derrik Wilson										
MWD Operator1	Adam Merha										
MWD Operator2	Rick Perry										
Directional Company:	Scientific Drilling Int.										
Geologist:											
Company Man:	Dale O Driscoll										
Incl. In:	0.75	Azm. In:	95.01	Incl. Out:	0.75	Azm. Out:	95.01				
GENERAL COMMENT											
Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT				
25-Mar-09	00:00	24:00	24.00	0	0	Standby	Standby- waiting on rig skid				



Scientific Drilling
Rocky Mountain Operations

JOB NO.:	42DEF0903135	Report Time:	2400	2 of 14
COMPANY:	Kerr McGee Oil and Gas Onshore LP	API JOB #:	43-047-40202	
LOCATION:	NBU 921-27C Pad	WORK ORDER#	136305	
RIG NAME:	Ensign 139	FIELD:	Natural Buttes Unit	
STATE:	Utah	Township:	Sec 27 T9S R21E	
COUNTY:	Uintah	SECT/RANGE:		Rocky Mountain
WELL NAME:	NBU 921-27D2AS			

From Thursday, March 26, 2009 at 0000 to Thursday, March 26, 2009 at 2400

DRILLING SUMMARY

Start Depth	2387.00	Rotary Hours	2.50	WOB	10	Pick UP	100	Slack Off	100	SPM
End Depth	2710.00	Circulating Hours	0.00	RAB	100	SPP	1000	FlowRate	0 - 476	114
Total Drilled:	323.00	Avg. Total ROP:	99.38							
Total Rotary Drilled:	293.00	Avg. Rotary ROP:	117.20	Type				PV	0	SOLID
Total Drilled Sliding:	30.00	Avg. Slide ROP:	40.00	Weight	8.3	GAS	0	YP	0	BHT°
Slide Hours:	0.75	Percent Rotary:	90.71	Viscosity	0	SAND	0	PH	0	Flow T°
Below Rotary Hrs.	17.00	Percent Slide:	9.29	Chlorides	0	WL	0			Oil %

PERSONNEL

Lead Directional :	Phillip Alvarado	Size	Lb/ft	Set Depth	BHA					
Second Directional :	Derrick Wilson				BHA # 1: QD506 6X13'S, 6.5 MUD					
MWD Operator1	Adam Merha				MOTOR 1.75 , 6.5 NM Pony, 6.5 HOS,					
MWD Operator2	Rick Perry				6.5 NMDC, 6.5 HOS, 6.5 GAP , 6.5					
Directional Company:	Scientific Drilling Int.				NMDC, 6.5 NM Pony, 30 JTS HWDP ,					
Geologist:										
Company Man:	Dale O Driscoll									
Incl. In:	0.75	Azm. In:	95.01	Incl. Out:	0.64	Azm. Out:	121.36			

GENERAL COMMENT

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
26-Mar-09	00:00	02:00	2.00	0	0	Test BOPS	Test BOPS
26-Mar-09	02:00	07:00	5.00	0	0	Test BOPS	Test BOPS
26-Mar-09	07:00	09:45	2.75	0	0	Other	Other-rig up
26-Mar-09	09:45	12:00	2.25	0	0	Other	Other-Inspect BHA
26-Mar-09	12:00	14:00	2.00	0	0	Change BHA	Change BHA
26-Mar-09	14:00	18:00	4.00	0	1044	Other	Other-Inspect BHA
26-Mar-09	18:00	20:45	2.75	1044	2387	TIH	TIH
26-Mar-09	20:45	22:00	1.25	2387	2521	Drilling	Drill cement and shoe
26-Mar-09	22:00	22:50	0.83	2521	2632	Drilling	Drilling
26-Mar-09	22:50	23:15	0.42	2632	2647	Sliding	Sliding
26-Mar-09	23:15	23:35	0.33	2647	2677	Drilling	Drilling - (WOB:10;GPM :476;RPM:40)
26-Mar-09	23:35	23:55	0.33	2677	2692	Sliding	Sliding - (WOB:10;GPM :476;TFO:295)
26-Mar-09	23:55	24:00	0.08	2692	2710	Drilling	Drilling - (WOB:10;GPM :476;RPM:40)



Scientific Drilling
Rocky Mountain Operations

JOB NO.:	42DEF0903135	Report Time:	2400	3 of 14
COMPANY:	Kerr McGee Oil and Gas Onshore LP	API JOB #	43-047-40202	
LOCATION:	NBU 921-27C Pad	WORK ORDER#	136305	
RIG NAME:	Ensign 139	FIELD:	Natural Buttes Unit	
STATE:	Utah	Township:	Sec 27 T9S R21E	
COUNTY:	Uintah	SECT\RANGE:		Rocky Mountain
WELL NAME:	NBU 921-27D2AS			

From Friday, March 27, 2009 at 0000 to Friday, March 27, 2009 at 2400

DRILLING SUMMARY				Drilling Parameters													
Start Depth	2710.00	Rotary Hours	7.17	WOB	11	Pick UP	100	Slack Off	100	SPM							
End Depth	3898.00	Circulating Hours	0.00	RAB	100	SPP	1320	FlowRate	0 - 476	114							
Total Drilled:	1188.00	Avg. Total ROP:	67.89								Mud Data						
Total Rotary Drilled:	663.00	Avg. Rotary ROP:	92.51	Type				PV	0	SOLID	0						
Total Drilled Sliding:	525.00	Avg. Slide ROP:	50.81	Weight	8.4	GAS	0	YP	0	BHT°	0						
Slide Hours:	10.33	Percent Rotary:	55.81	Viscosity	26	SAND	0	PH	10	Flow T°	0						
Below Rotary Hrs.	24.00	Percent Slide:	44.19	Chlorides	7200	WL	0			Oil %	0						
PERSONNEL				cASING				BHA									
Lead Directional :	Phillip Alvarado			Size	Lb/ft	Set Depth		BHA # 1: QD506 6X13'S, 6.5 MUD MOTOR 1.75 , 6.5 NM Pony, 6.5 HOS, 6.5 NMDC, 6.5 HOS, 6.5 GAP , 6.5 NMDC, 6.5 NM Pony, 30 JTS HWDP,									
Second Directional :	Derrik Wilson			Signature:													
MWD Operator1	Adam Merha																
MWD Operator2	Rick Perry																
Directional Company:	Scientific Drilling Int.																
Geologist:																	
Company Man:	Date O Driscoll																
Incl. In:	0.64	Azm. In:	121.36	Incl. Out:	32.33	Azm. Out:	294.1										

GENERAL COMMENT

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
27-Mar-09	00:00	00:15	0.25	2710	2723	Drilling	Drilling - (WOB:10;GPM :476;RPM:40)
27-Mar-09	00:15	00:30	0.25	2723	2735	Sliding	Sliding - (WOB:10;GPM :476;TFO:330)
27-Mar-09	00:30	00:55	0.42	2735	2765	Drilling	Drilling - (WOB:10;GPM :476;RPM:40)
27-Mar-09	00:55	01:10	0.25	2765	2778	Sliding	Sliding - (WOB:10;GPM :476;TFO:330)
27-Mar-09	01:10	01:30	0.33	2778	2811	Drilling	Drilling - (WOB:10;GPM :476;RPM:40)
27-Mar-09	01:30	01:45	0.25	2811	2825	Sliding	Sliding - (WOB:10;GPM :476;TFO:292)
27-Mar-09	01:45	02:00	0.25	2825	2857	Drilling	Drilling - (WOB:10;GPM :476;RPM:40)
27-Mar-09	02:00	02:10	0.17	2857	2857	Survey & Conn.	Survey & Conn.
27-Mar-09	02:10	02:30	0.33	2857	2872	Sliding	Sliding - (WOB:10;GPM :476;TFO:-15)
27-Mar-09	02:30	02:45	0.25	2872	2903	Drilling	Drilling - (WOB:10;GPM :476;RPM:40)
27-Mar-09	02:45	03:05	0.33	2903	2921	Sliding	Sliding - (WOB:10;GPM :476;TFO:-15)
27-Mar-09	03:05	03:25	0.33	2921	2948	Drilling	Drilling - (WOB:10;GPM :476;RPM:40)
27-Mar-09	03:25	03:35	0.17	2948	2948	Survey & Conn.	Survey & Conn.
27-Mar-09	03:35	04:00	0.42	2948	2966	Sliding	Sliding - (WOB:10;GPM :476;TFO:-15)
27-Mar-09	04:00	06:00	2.00	2966	2966	Rig repair	Rig repair
27-Mar-09	06:00	06:15	0.25	2966	2990	Drilling	Drilling - (WOB:10;GPM :476;RPM:40)
27-Mar-09	06:15	06:40	0.42	2990	3007	Sliding	Sliding - (WOB:10;GPM :476;TFO:-15)

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
27-Mar-09	06:40	07:15	0.58	3007	3036	Drilling	Drilling - (WOB:5;GPM :476;RPM:45)
27-Mar-09	07:15	07:25	0.17	3036	3036	Survey & Conn.	Survey & Conn.
27-Mar-09	07:25	07:45	0.33	3036	3051	Sliding	Sliding - (WOB:5;GPM :476;TFO:1)
27-Mar-09	07:45	08:00	0.25	3051	3081	Drilling	Drilling - (WOB:5;GPM :476;RPM:45)
27-Mar-09	08:00	08:15	0.25	3081	3094	Sliding	Sliding - (WOB:5;GPM :476;TFO:10)
27-Mar-09	08:15	08:30	0.25	3094	3126	Drilling	Drilling - (WOB:5;GPM :476;RPM:45)
27-Mar-09	08:30	08:40	0.17	3126	3126	Survey & Conn.	Survey & Conn.
27-Mar-09	08:40	09:00	0.33	3126	3146	Sliding	Sliding - (WOB:6;GPM :476;TFO:10)
27-Mar-09	09:00	09:15	0.25	3146	3171	Drilling	Drilling - (WOB:5;GPM :476;RPM:45)
27-Mar-09	09:15	09:35	0.33	3171	3191	Sliding	Sliding - (WOB:6;GPM :476;TFO:10)
27-Mar-09	09:35	09:50	0.25	3191	3217	Drilling	Drilling - (WOB:5;GPM :476;RPM:45)
27-Mar-09	09:50	10:00	0.17	3217	3217	Survey & Conn.	Survey & Conn.
27-Mar-09	10:00	10:20	0.33	3217	3239	Sliding	Sliding - (WOB:6;GPM :476;TFO:20)
27-Mar-09	10:20	10:40	0.33	3239	3262	Drilling	Drilling - (WOB:11;GPM :476;RPM:45)
27-Mar-09	10:40	11:00	0.33	3262	3278	Sliding	Sliding - (WOB:10;GPM :476;TFO:20)
27-Mar-09	11:00	11:10	0.17	3278	3307	Drilling	Drilling - (WOB:11;GPM :476;RPM:45)
27-Mar-09	11:10	13:50	2.67	3307	3307	Rig Service-Inhole	Rig Service-Inhole, and service ironderrikman
27-Mar-09	13:50	14:20	0.50	3307	3327	Sliding	Sliding - (WOB:10;GPM :476;TFO:20)
27-Mar-09	14:20	14:40	0.33	3327	3352	Drilling	Drilling - (WOB:11;GPM :476;RPM:45)
27-Mar-09	14:40	15:00	0.33	3352	3371	Sliding	Sliding - (WOB:10;GPM :476;TFO:30)
27-Mar-09	15:00	15:10	0.17	3371	3398	Drilling	Drilling - (WOB:11;GPM :476;RPM:45)
27-Mar-09	15:10	15:20	0.17	3398	3398	Survey & Conn.	Survey & Conn.
27-Mar-09	15:20	15:45	0.42	3398	3421	Sliding	Sliding - (WOB:10;GPM :476;TFO:30)
27-Mar-09	15:45	15:55	0.17	3421	3443	Drilling	Drilling - (WOB:11;GPM :476;RPM:45)
27-Mar-09	15:55	16:25	0.50	3443	3468	Sliding	Sliding - (WOB:10;GPM :476;TFO:30)
27-Mar-09	16:25	16:35	0.17	3468	3488	Drilling	Drilling - (WOB:11;GPM :476;RPM:45)
27-Mar-09	16:35	16:45	0.17	3488	3488	Survey & Conn.	Survey & Conn.
27-Mar-09	16:45	17:10	0.42	3488	3511	Sliding	Sliding - (WOB:10;GPM :476;TFO:15)
27-Mar-09	17:10	17:25	0.25	3511	3534	Drilling	Drilling - (WOB:11;GPM :476;RPM:45)
27-Mar-09	17:25	18:00	0.58	3534	3559	Sliding	Sliding - (WOB:10;GPM :476;TFO:15)
27-Mar-09	18:00	18:15	0.25	3559	3580	Drilling	Drilling - (WOB:11;GPM :476;RPM:45)
27-Mar-09	18:15	18:25	0.17	3580	3580	Survey & Conn.	Survey & Conn.
27-Mar-09	18:25	18:50	0.42	3580	3605	Sliding	Sliding - (WOB:10;GPM :476;TFO:-15)
27-Mar-09	18:50	19:05	0.25	3605	3629	Drilling	Drilling - (WOB:11;GPM :476;RPM:45)
27-Mar-09	19:05	19:35	0.50	3629	3659	Sliding	Sliding - (WOB:10;GPM :476;TFO:1)
27-Mar-09	19:35	19:50	0.25	3659	3670	Drilling	Drilling - (WOB:11;GPM :476;RPM:45)
27-Mar-09	19:50	20:00	0.17	3670	3670	Survey & Conn.	Survey & Conn.
27-Mar-09	20:00	20:45	0.75	3670	3705	Sliding	Sliding - (WOB:10;GPM :476;TFO:1)
27-Mar-09	20:45	21:00	0.25	3705	3718	Drilling	Drilling - (WOB:11;GPM :476;RPM:45)
27-Mar-09	21:00	21:35	0.58	3718	3745	Sliding	Sliding - (WOB:10;GPM :476;TFO:1)
27-Mar-09	21:35	21:45	0.17	3745	3760	Drilling	Drilling - (WOB:11;GPM :476;RPM:45)
27-Mar-09	21:45	21:55	0.17	3760	3760	Survey & Conn.	Survey & Conn.
27-Mar-09	21:55	22:25	0.50	3760	3780	Sliding	Sliding - (WOB:10;GPM :476;TFO:1)
27-Mar-09	22:25	22:45	0.33	3780	3807	Drilling	Drilling - (WOB:11;GPM :476;RPM:45)
27-Mar-09	22:45	23:10	0.42	3807	3832	Sliding	Sliding - (WOB:10;GPM :476;TFO:1)
27-Mar-09	23:10	23:25	0.25	3832	3852	Drilling	Drilling - (WOB:11;GPM :476;RPM:45)
27-Mar-09	23:25	23:35	0.17	3852	3852	Survey & Conn.	Survey & Conn.
27-Mar-09	23:35	23:50	0.25	3852	3867	Sliding	Sliding - (WOB:10;GPM :476;TFO:1)

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
27-Mar-09	23:50	24:00	0.17	3867	3898	Drilling	Drilling - (WOB:11;GPM :476;RPM:45)



Scientific Drilling
Rocky Mountain Operations

JOB NO.:	42DEF0903135	Report Time:	2400	4 of 14
COMPANY:	Kerr McGee Oil and Gas Onshore LP	API JOB #	43-047-40202	
LOCATION:	NBU 921-27C Pad	WORK ORDER#	136305	
RIG NAME:	Ensign 139	FIELD:	Natural Buttes Unit	
STATE:	Utah	Township:	Sec 27 T9S R21E	
COUNTY:	Uintah	SECT RANGE:		Rocky Mountain
WELL NAME:	NBU 921-27D2AS			

From Saturday, March 28, 2009 at 0000 to Saturday, March 28, 2009 at 2400

DRILLING SUMMARY				Drilling Parameters													
Start Depth	3898.00	Rotary Hours	8.67	WOB	7	Pick UP	126	Slack Off	113	SPM							
End Depth	5257.00	Circulating Hours	0.00	RAB	117	SPP	1450	FlowRate	0 - 476		114						
Total Drilled:	1359.00	Avg. Total ROP:	67.67								Mud Data						
Total Rotary Drilled:	863.00	Avg. Rotary ROP:	99.58	Type				PV	0	SOLID	0						
Total Drilled Sliding:	496.00	Avg. Slide ROP:	43.45	Weight	8.4	GAS	0	YP	0	BHT°	0						
Slide Hours:	11.42	Percent Rotary:	63.50	Viscosity	26	SAND	0	PH	10.5	Flow T°	0						
Below Rotary Hrs.	24.00	Percent Slide:	36.50	Chlorides	7000	WL	0			Oil %	0						
PERSONNEL				cASING				BHA									
Lead Directional :	Phillip Alvarado			Size	Lb/ft	Set Depth		BHA # 1: QD506 6X13'S, 6.5 MUD MOTOR 1.75 , 6.5 NM Pony, 6.5 HOS, 6.5 NMDC, 6.5 HOS, 6.5 GAP , 6.5 NMDC, 6.5 NM Pony, 30 JTS HWDP ,									
Second Directional :	Derrik Wilson			Signature:													
MWD Operator1	Adam Merha																
MWD Operator2	Rick Perry																
Directional Company:	Scientific Drilling Int.																
Geologist:																	
Company Man:	Dale O Driscoll																
Incl. In:	32.33	Azm. In:	294.1	Incl. Out:	28.91	Azm. Out:	295.57										
GENERAL COMMENT																	

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
28-Mar-09	00:00	00:30	0.50	3898	3908	Sliding	Sliding - (WOB:10;GPM :476;TFO:1)
28-Mar-09	00:30	00:40	0.17	3908	3943	Drilling	Drilling - (WOB:11;GPM :476;RPM:45)
28-Mar-09	00:40	00:50	0.17	3943	3943	Survey & Conn.	Survey & Conn.
28-Mar-09	00:50	01:30	0.67	3943	3958	Sliding	Sliding - (WOB:10;GPM :476;TFO:1)
28-Mar-09	01:30	01:45	0.25	3958	3989	Drilling	Drilling - (WOB:11;GPM :476;RPM:45)
28-Mar-09	01:45	02:10	0.42	3989	4004	Sliding	Sliding - (WOB:10;GPM :476;TFO:30)
28-Mar-09	02:10	02:25	0.25	4004	4034	Drilling	Drilling - (WOB:11;GPM :476;RPM:45)
28-Mar-09	02:25	02:35	0.17	4034	4034	Survey & Conn.	Survey & Conn.
28-Mar-09	02:35	02:50	0.25	4034	4044	Sliding	Sliding - (WOB:10;GPM :476;TFO:30)
28-Mar-09	02:50	03:20	0.50	4044	4081	Drilling	Drilling - (WOB:11;GPM :476;RPM:45)
28-Mar-09	03:20	03:40	0.33	4081	4091	Sliding	Sliding - (WOB:10;GPM :476;TFO:30)
28-Mar-09	03:40	03:55	0.25	4091	4126	Drilling	Drilling - (WOB:11;GPM :476;RPM:45)
28-Mar-09	03:55	04:05	0.17	4126	4126	Survey & Conn.	Survey & Conn.
28-Mar-09	04:05	04:25	0.33	4126	4141	Sliding	Sliding - (WOB:10;GPM :476;TFO:30)
28-Mar-09	04:25	04:45	0.33	4141	4173	Drilling	Drilling - (WOB:11;GPM :476;RPM:45)
28-Mar-09	04:45	05:05	0.33	4173	4188	Sliding	Sliding - (WOB:10;GPM :476;TFO:30)
28-Mar-09	05:05	05:25	0.33	4188	4217	Drilling	Drilling - (WOB:11;GPM :476;RPM:45)

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
28-Mar-09	05:25	05:35	0.17	4217	4217	Survey & Conn.	Survey & Conn.
28-Mar-09	05:35	06:00	0.42	4217	4237	Sliding	Sliding - (WOB:10;GPM :476;TFO:30)
28-Mar-09	06:00	06:15	0.25	4237	4265	Drilling	Drilling - (WOB:11;GPM :476;RPM:45)
28-Mar-09	06:15	06:50	0.58	4265	4290	Sliding	Sliding - (WOB:10;GPM :476;TFO:10)
28-Mar-09	06:50	07:00	0.17	4290	4303	Drilling	Drilling - (WOB:11;GPM :476;RPM:45)
28-Mar-09	07:00	07:10	0.17	4303	4303	Survey & Conn.	Survey & Conn.
28-Mar-09	07:10	07:40	0.50	4303	4333	Sliding	Sliding - (WOB:10;GPM :476;TFO:25)
28-Mar-09	07:40	07:55	0.25	4333	4352	Drilling	Drilling - (WOB:11;GPM :476;RPM:45)
28-Mar-09	07:55	08:25	0.50	4352	4377	Sliding	Sliding - (WOB:0;GPM :0;TFO:0)
28-Mar-09	08:25	08:35	0.17	4377	4393	Drilling	Drilling - (WOB:11;GPM :476;RPM:45)
28-Mar-09	08:35	08:45	0.17	4393	4393	Survey & Conn.	Survey & Conn.
28-Mar-09	08:45	09:10	0.42	4393	4425	Sliding	Sliding - (WOB:0;GPM :0;TFO:25)
28-Mar-09	09:10	09:20	0.17	4425	4444	Drilling	Drilling - (WOB:11;GPM :476;RPM:45)
28-Mar-09	09:20	09:50	0.50	4444	4474	Sliding	Sliding - (WOB:0;GPM :0;TFO:35)
28-Mar-09	09:50	10:00	0.17	4474	4484	Drilling	Drilling - (WOB:11;GPM :476;RPM:45)
28-Mar-09	10:00	10:10	0.17	4484	4484	Survey & Conn.	Survey & Conn.
28-Mar-09	10:10	10:25	0.25	4484	4509	Sliding	Sliding - (WOB:0;GPM :0;TFO:10)
28-Mar-09	10:25	10:35	0.17	4509	4533	Drilling	Drilling - (WOB:11;GPM :476;RPM:45)
28-Mar-09	10:35	11:05	0.50	4533	4558	Sliding	Sliding - (WOB:0;GPM :0;TFO:-10)
28-Mar-09	11:05	11:10	0.08	4558	4574	Drilling	Drilling - (WOB:11;GPM :476;RPM:45)
28-Mar-09	11:10	11:20	0.17	4574	4574	Survey & Conn.	Survey & Conn.
28-Mar-09	11:20	11:35	0.25	4574	4594	Sliding	Sliding - (WOB:0;GPM :0;TFO:1)
28-Mar-09	11:35	11:50	0.25	4594	4625	Drilling	Drilling - (WOB:7;GPM :476;RPM:45)
28-Mar-09	11:50	12:15	0.42	4625	4645	Sliding	Sliding - (WOB:0;GPM :0;TFO:15)
28-Mar-09	12:15	12:25	0.17	4645	4666	Drilling	Drilling - (WOB:7;GPM :476;RPM:45)
28-Mar-09	12:25	12:45	0.33	4666	4666	Rig Service-Inhole	Rig Service-Inhole
28-Mar-09	12:45	12:50	0.08	4666	4666	Survey & Conn.	Survey & Conn.
28-Mar-09	12:50	13:15	0.42	4666	4685	Sliding	Sliding - (WOB:0;GPM :0;TFO:20)
28-Mar-09	13:15	13:30	0.25	4685	4715	Drilling	Drilling - (WOB:7;GPM :476;RPM:45)
28-Mar-09	13:30	14:00	0.50	4715	4740	Sliding	Sliding - (WOB:0;GPM :0;TFO:20)
28-Mar-09	14:00	14:15	0.25	4740	4755	Drilling	Drilling - (WOB:7;GPM :476;RPM:45)
28-Mar-09	14:15	14:25	0.17	4755	4755	Survey & Conn.	Survey & Conn.
28-Mar-09	14:25	15:10	0.75	4755	4775	Sliding	Sliding - (WOB:0;GPM :0;TFO:20)
28-Mar-09	15:10	15:50	0.67	4775	4847	Drilling	Drilling - (WOB:7;GPM :476;RPM:45)
28-Mar-09	15:50	17:10	1.33	4847	4847	Rig Service-Inhole	Rig Service-Inhole
28-Mar-09	17:10	17:20	0.17	4847	4847	Survey & Conn.	Survey & Conn.
28-Mar-09	17:20	17:30	0.17	4847	4857	Sliding	Sliding - (WOB:0;GPM :0;TFO:20)
28-Mar-09	17:30	18:20	0.83	4857	4938	Drilling	Drilling - (WOB:7;GPM :476;RPM:45)
28-Mar-09	18:20	18:30	0.17	4938	4938	Survey & Conn.	Survey & Conn.
28-Mar-09	18:30	18:50	0.33	4938	4953	Sliding	Sliding - (WOB:0;GPM :0;TFO:20)
28-Mar-09	18:50	19:10	0.33	4953	4986	Drilling	Drilling - (WOB:7;GPM :476;RPM:45)
28-Mar-09	19:10	19:40	0.50	4986	5006	Sliding	Sliding - (WOB:0;GPM :0;TFO:20)
28-Mar-09	19:40	19:55	0.25	5006	5030	Drilling	Drilling - (WOB:7;GPM :476;RPM:45)
28-Mar-09	19:55	20:05	0.17	5030	5030	Survey & Conn.	Survey & Conn.
28-Mar-09	20:05	20:30	0.42	5030	5040	Sliding	Sliding - (WOB:0;GPM :0;TFO:20)
28-Mar-09	20:30	21:50	1.33	5040	5168	Drilling	Drilling - (WOB:7;GPM :476;RPM:45)
28-Mar-09	21:50	22:30	0.67	5168	5188	Sliding	Sliding - (WOB:0;GPM :0;TFO:20)
28-Mar-09	22:30	22:45	0.25	5188	5207	Drilling	Drilling - (WOB:7;GPM :476;RPM:45)

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
28-Mar-09	22:45	22:55	0.17	5207	5207	Survey & Conn.	Survey & Conn.
28-Mar-09	22:55	23:25	0.50	5207	5222	Sliding	Sliding - (WOB:0;GPM :0;TFO:20)
28-Mar-09	23:25	24:00	0.58	5222	5257	Drilling	Drilling - (WOB:7;GPM :476;RPM:45)



Scientific Drilling
Rocky Mountain Operations

JOB NO.:	42DEF0903135	Report Time:	2400	5 of 14
COMPANY:	Kerr McGee Oil and Gas Onshore LP	API JOB #	43-047-40202	
LOCATION:	NBU 921-27C Pad	WORK ORDER#	136305	
RIG NAME:	Ensign 139	FIELD:	Natural Buttes Unit	
STATE:	Utah	Township:	Sec 27 T9S R21E	
COUNTY:	Uintah	SECT/RANGE:		Rocky Mountain
WELL NAME:	NBU 921-27D2AS			

From Sunday, March 29, 2009 at 0000 to Sunday, March 29, 2009 at 2400

DRILLING SUMMARY

Start Depth	5257.00	Rotary Hours	16.17	WOB	15	Pick UP	180	Slack Off	135	SPM
End Depth	6794.00	Circulating Hours	0.00	RAB	155	SPP	1780	FlowRate	0 - 476	114

Total Drilled:	1537.00	Avg. Total ROP:	71.21	Mud Data						
Total Rotary Drilled:	1395.00	Avg. Rotary ROP:	86.29	Type				PV	0	SOLID
Total Drilled Sliding:	142.00	Avg. Slide ROP:	26.22	Weight	8.4	GAS	0	YP	0	BHT°
Slide Hours:	5.42	Percent Rotary:	90.76	Viscosity	26	SAND	0	PH	10	Flow T°
Below Rotary Hrs.	24.00	Percent Slide:	9.24	Chlorides	7000	WL	0			Oil %

PERSONNEL

Lead Directional :	Phillip Alvarado	Size	Lb/ft	Set Depth	BHA					
Second Directional :	Derrick Wilson				BHA # 1: QD506 6X13'S, 6.5 MUD					
MWD Operator1	Adam Merha				MOTOR 1.75 , 6.5 NM Pony, 6.5 HOS,					
MWD Operator2	Rick Perry				6.5 NMDC, 6.5 HOS, 6.5 GAP , 6.5					
Directional Company:	Scientific Drilling Int.				NMDC, 6.5 NM Pony, 30 JTS HWDP,					
Geologist:		Signature:								
Company Man:	Dale O Driscoll									
Incl. In:	28.91	Azm. In:	295.57	Incl. Out:	6.11	Azm. Out:	287.44			

GENERAL COMMENT

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
29-Mar-09	00:00	00:25	0.42	5257	5272	Sliding	Sliding - (WOB:0;GPM :0;TFO:20)
29-Mar-09	00:25	01:20	0.92	5272	5345	Drilling	Drilling - (WOB:7;GPM :476;RPM:45)
29-Mar-09	01:20	01:35	0.25	5345	5355	Sliding	Sliding - (WOB:0;GPM :0;TFO:20)
29-Mar-09	01:35	01:50	0.25	5355	5390	Drilling	Drilling - (WOB:7;GPM :476;RPM:45)
29-Mar-09	01:50	02:00	0.17	5390	5390	Survey & Conn.	Survey & Conn.
29-Mar-09	02:00	02:40	0.67	5390	5479	Drilling	Drilling - (WOB:7;GPM :476;RPM:45)
29-Mar-09	02:40	02:50	0.17	5479	5479	Survey & Conn.	Survey & Conn.
29-Mar-09	02:50	03:25	0.58	5479	5570	Drilling	Drilling - (WOB:7;GPM :476;RPM:45)
29-Mar-09	03:25	03:35	0.17	5570	5570	Survey & Conn.	Survey & Conn.
29-Mar-09	03:35	04:00	0.42	5570	5580	Sliding	Sliding - (WOB:0;GPM :0;TFO:20)
29-Mar-09	04:00	04:25	0.42	5580	5617	Drilling	Drilling - (WOB:14;GPM :476;RPM:45)
29-Mar-09	04:25	04:40	0.25	5617	5627	Sliding	Sliding - (WOB:25;GPM :0;TFO:-45)
29-Mar-09	04:40	05:30	0.83	5627	5710	Drilling	Drilling - (WOB:14;GPM :476;RPM:45)
29-Mar-09	05:30	05:45	0.25	5710	5715	Sliding	Sliding - (WOB:25;GPM :0;TFO:180)
29-Mar-09	05:45	06:50	1.08	5715	5841	Drilling	Drilling - (WOB:25;GPM :0;RPM:0)
29-Mar-09	06:50	07:00	0.17	5841	5841	Survey & Conn.	Survey & Conn.
29-Mar-09	07:00	07:15	0.25	5841	5848	Sliding	Sliding - (WOB:25;GPM :0;TFO:-160)

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
29-Mar-09	07:15	08:05	0.83	5848	5932	Drilling	Drilling - (WOB:25;GPM :0;RPM:45)
29-Mar-09	08:05	08:10	0.08	5932	5932	Survey & Conn.	Survey & Conn.
29-Mar-09	08:10	08:30	0.33	5932	5949	Sliding	Sliding - (WOB:25;GPM :0;TFO:170)
29-Mar-09	08:30	09:20	0.83	5949	6024	Drilling	Drilling - (WOB:25;GPM :0;RPM:45)
29-Mar-09	09:20	09:30	0.17	6024	6024	Survey & Conn.	Survey & Conn.
29-Mar-09	09:30	09:50	0.33	6024	6036	Sliding	Sliding - (WOB:25;GPM :0;TFO:-160)
29-Mar-09	09:50	10:30	0.67	6036	6115	Drilling	Drilling - (WOB:15;GPM :0;RPM:45)
29-Mar-09	10:30	10:40	0.17	6115	6115	Survey & Conn.	Survey & Conn.
29-Mar-09	10:40	10:55	0.25	6115	6123	Sliding	Sliding - (WOB:25;GPM :0;TFO:180)
29-Mar-09	10:55	11:45	0.83	6123	6108	Drilling	Drilling - (WOB:15;GPM :476;RPM:45)
29-Mar-09	11:45	11:55	0.17	6108	6108	Survey & Conn.	Survey & Conn.
29-Mar-09	11:55	12:10	0.25	6108	6116	Sliding	Sliding - (WOB:25;GPM :476;TFO:180)
29-Mar-09	12:10	13:10	1.00	6116	6297	Drilling	Drilling - (WOB:15;GPM :476;RPM:45)
29-Mar-09	13:10	13:30	0.33	6297	6297	Rig Service_Inhole	Rig Service-Inhole
29-Mar-09	13:30	13:40	0.17	6297	6297	Survey & Conn.	Survey & Conn.
29-Mar-09	13:40	13:50	0.17	6297	6305	Sliding	Sliding - (WOB:25;GPM :476;TFO:180)
29-Mar-09	13:50	15:00	1.17	6305	6388	Drilling	Drilling - (WOB:15;GPM :476;RPM:45)
29-Mar-09	15:00	15:10	0.17	6388	6388	Survey & Conn.	Survey & Conn.
29-Mar-09	15:10	15:25	0.25	6388	6394	Sliding	Sliding - (WOB:25;GPM :476;TFO:-170)
29-Mar-09	15:25	16:40	1.25	6394	6474	Drilling	Drilling - (WOB:15;GPM :476;RPM:45)
29-Mar-09	16:40	16:50	0.17	6474	6474	Survey & Conn.	Survey & Conn.
29-Mar-09	16:50	17:00	0.17	6474	6480	Sliding	Sliding - (WOB:25;GPM :476;TFO:180)
29-Mar-09	17:00	18:15	1.25	6480	6568	Drilling	Drilling - (WOB:15;GPM :476;RPM:45)
29-Mar-09	18:15	18:40	0.42	6568	6573	Sliding	Sliding - (WOB:25;GPM :476;TFO:180)
29-Mar-09	18:40	20:20	1.67	6573	6668	Drilling	Drilling - (WOB:15;GPM :476;RPM:45)
29-Mar-09	20:20	20:30	0.17	6668	6668	Survey & Conn.	Survey & Conn.
29-Mar-09	20:30	21:20	0.83	6668	6673	Sliding	Sliding - (WOB:25;GPM :476;TFO:180)
29-Mar-09	21:20	22:45	1.42	6673	6748	Drilling	Drilling - (WOB:15;GPM :476;RPM:45)
29-Mar-09	22:45	22:55	0.17	6748	6748	Survey & Conn.	Survey & Conn.
29-Mar-09	22:55	23:30	0.58	6748	6758	Sliding	Sliding - (WOB:25;GPM :476;TFO:180)
29-Mar-09	23:30	24:00	0.50	6758	6794	Drilling	Drilling - (WOB:15;GPM :476;RPM:45)



Scientific Drilling
Rocky Mountain Operations

JOB NO.:	42DEF0903135	Report Time:	2400	6 of 14
COMPANY:	Kerr McGee Oil and Gas Onshore LP	API JOB #	43-047-40202	
LOCATION:	NBU 921-27C Pad	WORK ORDER#	136305	
RIG NAME:	Ensign 139	FIELD:	Natural Buttes Unit	
STATE:	Utah	Township:	Sec 27 T9S R21E	
COUNTY:	Uintah	SECT/RANGE:		Rocky Mountain
WELL NAME:	NBU 921-27D2AS			

From Monday, March 30, 2009 at 0000 to Monday, March 30, 2009 at 2400

DRILLING SUMMARY

Start Depth	6794.00	Rotary Hours	16.25	WOB	18	Pick UP	220	Slack Off	146	SPM
End Depth	7832.00	Circulating Hours	0.00	RAB	170	SPP	2200	FlowRate	0 - 476	114

Total Drilled:	1038.00	Avg. Total ROP:	55.36	Mud Data						
Total Rotary Drilled:	981.00	Avg. Rotary ROP:	60.37	Type	LSND		PV	11	SOLID	4.5
Total Drilled Sliding:	57.00	Avg. Slide ROP:	22.80	Weight	9.6	GAS	0	YP	6	BHT°
Slide Hours:	2.50	Percent Rotary:	94.51	Viscosity	37	SAND	0.0625	PH	10.5	Flow T°
Below Rotary Hrs.	24.00	Percent Slide:	5.49	Chlorides	5000	WL	0			Oil %

PERSONNEL

Lead Directional :	Phillip Alvarado	Size	Lb/ft	Set Depth	BHA					
Second Directional :	Derrick Wilson				BHA # 1: QD506 6X13'S, 6.5 MUD					
MWD Operator1	Adam Merha				MOTOR 1.75 , 6.5 NM Pony, 6.5 HOS,					
MWD Operator2	Tad Heil				6.5 NMDC, 6.5 HOS, 6.5 GAP , 6.5					
Directional Company:	Scientific Drilling Int.				NMDC, 6.5 NM Pony, 30 JTS HWDP ,					
Geologist:		Signature:								
Company Man:	Dale O Driscoll									
Incl. In:	6.11	Azm. In:	287.44	Incl. Out:	0.71	Azm. Out:	158.11			

GENERAL COMMENT

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
30-Mar-09	00:00	00:45	0.75	6794	6845	Drilling	Drilling - (WOB:15;GPM :476;RPM:45)
30-Mar-09	00:45	00:55	0.17	6845	6845	Survey & Conn.	Survey & Conn.
30-Mar-09	00:55	02:00	1.08	6845	6859	Sliding	Sliding - (WOB:25;GPM :476;TFO:180)
30-Mar-09	02:00	03:45	1.75	6859	6927	Drilling	Drilling - (WOB:15;GPM :476;RPM:45)
30-Mar-09	03:45	03:55	0.17	6927	6927	Survey & Conn.	Survey & Conn.
30-Mar-09	03:55	04:20	0.42	6927	6939	Sliding	Sliding - (WOB:25;GPM :476;TFO:180)
30-Mar-09	04:20	05:30	1.17	6939	7018	Drilling	Drilling - (WOB:15;GPM :476;RPM:45)
30-Mar-09	05:30	05:40	0.17	7018	7018	Survey & Conn.	Survey & Conn.
30-Mar-09	05:40	06:00	0.33	7018	7027	Sliding	Sliding - (WOB:25;GPM :476;TFO:90)
30-Mar-09	06:00	07:00	1.00	7027	7108	Drilling	Drilling - (WOB:15;GPM :476;RPM:45)
30-Mar-09	07:00	07:10	0.17	7108	7108	Survey & Conn.	Survey & Conn.
30-Mar-09	07:10	08:40	1.50	7108	7199	Drilling	Drilling - (WOB:18;GPM :476;RPM:45)
30-Mar-09	08:40	08:50	0.17	7199	7199	Survey & Conn.	Survey & Conn.
30-Mar-09	08:50	09:50	1.00	7199	7291	Drilling	Drilling - (WOB:18;GPM :476;RPM:45)
30-Mar-09	09:50	10:00	0.17	7291	7291	Survey & Conn.	Survey & Conn.
30-Mar-09	10:00	11:10	1.17	7291	7382	Drilling	Drilling - (WOB:18;GPM :476;RPM:45)
30-Mar-09	11:10	11:20	0.17	7382	7382	Rig Service-Inhole	Rig Service-Inhole

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
30-Mar-09	11:20	11:30	0.17	7382	7382	Survey & Conn.	Survey & Conn.
30-Mar-09	11:30	11:50	0.33	7382	7392	Sliding	Sliding - (WOB:25;GPM :476;TFO:300)
30-Mar-09	11:50	13:35	1.75	7392	7477	Drilling	Drilling - (WOB:18;GPM :476;RPM:45)
30-Mar-09	13:35	13:45	0.17	7477	7477	Survey & Conn.	Survey & Conn.
30-Mar-09	13:45	14:05	0.33	7477	7489	Sliding	Sliding - (WOB:25;GPM :476;TFO:60)
30-Mar-09	14:05	15:25	1.33	7489	7559	Drilling	Drilling - (WOB:18;GPM :476;RPM:45)
30-Mar-09	15:25	15:30	0.08	7559	7559	Survey & Conn.	Survey & Conn.
30-Mar-09	15:30	16:55	1.42	7559	7650	Drilling	Drilling - (WOB:18;GPM :476;RPM:45)
30-Mar-09	16:55	17:00	0.08	7650	7650	Survey & Conn.	Survey & Conn.
30-Mar-09	17:00	18:45	1.75	7650	7740	Drilling	Drilling - (WOB:18;GPM :476;RPM:45)
30-Mar-09	18:45	18:55	0.17	7740	7740	Survey & Conn.	Survey & Conn.
30-Mar-09	18:55	20:35	1.67	7740	7832	Drilling	Drilling - (WOB:18;GPM :476;RPM:45)
30-Mar-09	20:35	24:00	3.42	7832	7832	Work Pipe	Work Pipe, Tight hole



Scientific Drilling
Rocky Mountain Operations

JOB NO.:	42DEF0903135	Report Time:	2400	7 of 14
COMPANY:	Kerr McGee Oil and Gas Onshore LP	API JOB #	43-047-40202	
LOCATION:	NBU 921-27C Pad	WORK ORDER#	136305	
RIG NAME:	Ensign 139	FIELD:	Natural Buttes Unit	
STATE:	Utah	Township:	Sec 27 T9S R21E	
COUNTY:	Uintah	SECT/RANGE:		Rocky Mountain
WELL NAME:	NBU 921-27D2AS			

From Tuesday, March 31, 2009 at 0000 to Tuesday, March 31, 2009 at 2400

DRILLING SUMMARY				Drilling Parameters																		
Start Depth	7832.00	Rotary Hours	17.50	WOB	18	Pick UP	220	Slack Off	146	SPM												
End Depth	8584.00	Circulating Hours	2.08	RAB	170	SPP	2020	FlowRate	0 - 476	105												
Total Drilled:	752.00	Avg. Total ROP:	39.93																			
Total Rotary Drilled:	726.00	Avg. Rotary ROP:	41.49	Type	LSND		PV	16	SOLID	10.3												
Total Drilled Sliding:	26.00	Avg. Slide ROP:	19.50	Weight	10.4	GAS	0	YP	6	BHT°												
Slide Hours:	1.33	Percent Rotary:	96.54	Viscosity	40	SAND	0.125	PH	9.5	Flow T°												
Below Rotary Hrs.	24.00	Percent Slide:	3.46	Chlorides	3200	WL	10.4			Oil %												
PERSONNEL				cASING				BHA														
Lead Directional :	Phillip Alvarado			Size	Lb/ft		Set Depth	BHA # 1:QD506 6X13'S, 6.5 MUD MOTOR 1.75 , 6.5 NM Pony, 6.5 HOS, 6.5 NMDC, 6.5 HOS, 6.5 GAP , 6.5 NMDC, 6.5 NM Pony, 30 JTS HWDP,														
Second Directional :	Derrick Wilson			Signature:																		
MWD Operator1	Adam Merha																					
MWD Operator2	Tad Heil																					
Directional Company:	Scientific Drilling Int.																					
Geologist:																						
Company Man:	Dale O Driscoll			Incl. In:	0.71	Azm. In:	158.11	Incl. Out:	0.6	Azm. Out:	149.19											

GENERAL COMMENT

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
31-Mar-09	00:00	01:35	1.58	7832	7832	Work Pipe	Work Pipe, Tight hole
31-Mar-09	01:35	01:45	0.17	7832	7832	Survey & Conn.	Survey & Conn.
31-Mar-09	01:45	02:15	0.50	7832	7844	Sliding	Sliding - (WOB:25;GPM :476;TFO:15)
31-Mar-09	02:15	04:05	1.83	7844	7922	Drilling	Drilling - (WOB:18;GPM :476;RPM:45)
31-Mar-09	04:05	04:15	0.17	7922	7922	Survey & Conn.	Survey & Conn.
31-Mar-09	04:15	06:15	2.00	7922	8013	Drilling	Drilling - (WOB:18;GPM :476;RPM:45)
31-Mar-09	06:15	06:25	0.17	8013	8013	Survey & Conn.	Survey & Conn.
31-Mar-09	06:25	08:10	1.75	8013	8104	Drilling	Drilling - (WOB:18;GPM :476;RPM:45)
31-Mar-09	08:10	08:15	0.08	8104	8104	Survey & Conn.	Survey & Conn.
31-Mar-09	08:15	10:40	2.42	8104	8195	Drilling	Drilling - (WOB:18;GPM :476;RPM:45)
31-Mar-09	10:40	11:00	0.33	8195	8195	Rig Service Inhole	Rig service in hole
31-Mar-09	11:00	11:05	0.08	8195	8195	Survey & Conn.	Survey & Conn.
31-Mar-09	11:05	13:30	2.42	8195	8284	Drilling	Drilling - (WOB:18;GPM :476;RPM:45)
31-Mar-09	13:30	13:35	0.08	8284	8284	Survey & Conn.	Survey & Conn.
31-Mar-09	13:35	16:05	2.50	8284	8374	Drilling	Drilling - (WOB:18;GPM :476;RPM:45)
31-Mar-09	16:05	16:10	0.08	8374	8374	Survey & Conn.	Survey & Conn.
31-Mar-09	16:10	18:00	1.83	8374	8465	Drilling	Drilling - (WOB:18;GPM :440;RPM:45)

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
31-Mar-09	18:00	18:55	0.92	8465	8465	Circulating	Circulating
31-Mar-09	18:55	19:05	0.17	8465	8465	Survey & Conn.	Survey & Conn.
31-Mar-09	19:05	20:55	1.83	8465	8555	Drilling	Drilling - (WOB:18;GPM :440;RPM:45)
31-Mar-09	20:55	22:05	1.17	8555	8555	Circulating	Circulating
31-Mar-09	22:05	22:15	0.17	8555	8555	Survey & Conn.	Survey & Conn.
31-Mar-09	22:15	23:05	0.83	8555	8569	Sliding	Sliding - (WOB:25;GPM :476;TFO:15)
31-Mar-09	23:05	24:00	0.92	8569	8584	Drilling	Drilling - (WOB:18;GPM :440;RPM:45)



Scientific Drilling
Rocky Mountain Operations

JOB NO.:	42DEF0903135	Report Time:	2400	8 of 14
COMPANY:	Kerr McGee Oil and Gas Onshore LP	API JOB #	43-047-40202	
LOCATION:	NBU 921-27C Pad	WORK ORDER#	136305	
RIG NAME:	Ensign 139	FIELD:	Natural Buttes Unit	
STATE:	Utah	Township:	Sec 27 T9S R21E	
COUNTY:	Uintah	SECT/RANGE:		Rocky Mountain
WELL NAME:	NBU 921-27D2AS			

From Wednesday, April 01, 2009 at 0000 to Wednesday, April 01, 2009 at 2400

DRILLING SUMMARY				Drilling Parameters																					
Start Depth	8584.00	Rotary Hours	3.33	WOB	0	Pick UP	220	Slack Off	146	SPM															
End Depth	8658.00	Circulating Hours	3.92	RAB	170	SPP	0	FlowRate	0 - 476	0															
Total Drilled:	74.00	Avg. Total ROP:	18.50																						
Total Rotary Drilled:	68.00	Avg. Rotary ROP:	20.40	Type	LSND			PV	20	SOLID	14.3														
Total Drilled Sliding:	6.00	Avg. Slide ROP:	9.00	Weight	11.2	GAS	0	YP	11	BHT°	0														
Slide Hours:	0.67	Percent Rotary:	91.89	Viscosity	43	SAND	0.75	PH	9	Flow T°	0														
Below Rotary Hrs.	24.00	Percent Slide:	8.11	Chlorides	2500	WL	8			Oil %	0														
PERSONNEL				cASING				BHA																	
Lead Directional :	Phillip Alvarado			Size	Lb/ft		Set Depth	BHA # 2:Q506X 6x14's, 6.5 MUD MOTOR 1.5, 6.5 NM Pony, 6.5 HOS, 6.5 NMDC, 6.5 HOS, 6.5 GAP , 6.5 NMDC, 6.5 NM Pony, 30 JTS HWDP,																	
Second Directional :	Derrik Wilson			Signature:																					
MWD Operator1	Adam Merha																								
MWD Operator2	Tad Heil																								
Directional Company:	Scientific Drilling Int.																								
Geologist:																									
Company Man:	Dale O Driscoll																								
Incl. In:	0.6	Azm. In:	149.19	Incl. Out:	0.14	Azm. Out:	180.97																		
GENERAL COMMENT																									

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
1-Apr-09	00:00	03:05	3.08	8584	8648	Drilling	Drilling - (WOB:18;GPM :440;RPM:45)
1-Apr-09	03:05	03:45	0.67	8648	8648	Circulating	Circulating
1-Apr-09	03:45	03:55	0.17	8648	8648	Survey & Conn.	Survey & Conn.
1-Apr-09	03:55	04:35	0.67	8648	8654	Sliding	Sliding - (WOB:25;GPM :476;TFO:15)
1-Apr-09	04:35	04:50	0.25	8654	8658	Drilling	Drilling - (WOB:18;GPM :440;RPM:45)
1-Apr-09	04:50	05:25	0.58	8658	8658	Circulating	Circulating
1-Apr-09	05:25	08:05	2.67	8658	8658	Circulating	Circulating-pump out of hole
1-Apr-09	08:05	16:00	7.92	8658	8658	POOH	POOH
1-Apr-09	16:00	17:40	1.67	8658	8658	Change BHA	Change BHA
1-Apr-09	17:40	20:55	3.25	8658	8658	TIH	TIH
1-Apr-09	20:55	24:00	3.08	8658	8658	Other	Cut and slip



Scientific Drilling
Rocky Mountain Operations

JOB NO.:	42DEF0903135	Report Time:	2400	9 of 14
COMPANY:	Kerr McGee Oil and Gas Onshore LP	API JOB #	43-047-40202	
LOCATION:	NBU 921-27C Pad	WORK ORDER#	136305	
RIG NAME:	Ensign 139	FIELD:	Natural Buttes Unit	
STATE:	Utah	Township:	Sec 27 T9S R21E	
COUNTY:	Uintah	SECT/RANGE:		Rocky Mountain
WELL NAME:	NBU 921-27D2AS			

From Thursday, April 02, 2009 at 0000 to Thursday, April 02, 2009 at 2400

DRILLING SUMMARY				Drilling Parameters													
Start Depth	8658.00	Rotary Hours	9.83	WOB	8	Pick UP	220	Slack Off	146	SPM							
End Depth	9008.00	Circulating Hours	1.17	RAB	170	SPP	2100	FlowRate	0 - 440	105							
Total Drilled:	350.00	Avg. Total ROP:	31.58		Mud Data												
Total Rotary Drilled:	330.00	Avg. Rotary ROP:	33.56	Type	LSND			PV	20	SOLID	14.3						
Total Drilled Sliding:	20.00	Avg. Slide ROP:	16.00	Weight	11.2	GAS	0	YP	11	BHT°	0						
Slide Hours:	1.25	Percent Rotary:	94.29	Viscosity	43	SAND	0.75	PH	9	Flow T°	0						
Below Rotary Hrs.	24.00	Percent Slide:	5.71	Chlorides	2500	WL	8			Oil %	0						
PERSONNEL				cASING				BHA									
Lead Directional :	Phillip Alvarado			Size	Lb/ft		Set Depth	BHA # 2:Q506X 6x14's, 6.5 MUD MOTOR 1.5, 6.5 NM Pony, 6.5 HOS, 6.5 NMDC, 6.5 HOS, 6.5 GAP , 6.5 NMDC, 6.5 NM Pony, 30 JTS HWDP,									
Second Directional :	Derrik Wilson			Signature:													
MWD Operator1	Rick Perry																
MWD Operator2	Tad Heil																
Directional Company:	Scientific Drilling Int.																
Geologist:																	
Company Man:	Dale O Driscoll																
Incl. In:	0.14	Azm. In:	180.97	Incl. Out:	0.52	Azm. Out:	87.23										

GENERAL COMMENT

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
2-Apr-09	00:00	01:50	1.83	8658	8658	Other	Cut and slip
2-Apr-09	01:50	03:45	1.92	8658	8658	Rig repair	Rig repair, Work on top drive
2-Apr-09	03:45	07:30	3.75	8658	8658	TIH	TIH
2-Apr-09	07:30	09:45	2.25	8658	8658	Rig repair	Rig repair, Work on top drive
2-Apr-09	09:45	11:00	1.25	8658	8658	TIH	TIH
2-Apr-09	11:00	12:10	1.17	8658	8658	Reaming	Ream to bottom
2-Apr-09	12:10	13:25	1.25	8658	8692	Drilling	Drilling - (WOB:18;GPM :440;RPM:45)
2-Apr-09	13:25	14:05	0.67	8692	8704	Sliding	Sliding - (WOB:25;GPM :476;TFO:330)
2-Apr-09	14:05	15:20	1.25	8704	8734	Drilling	Drilling - (WOB:8;GPM :440;RPM:45)
2-Apr-09	15:20	15:40	0.33	8734	8734	Rig Service-Inhole	Rig Service-Inhole
2-Apr-09	15:40	15:45	0.08	8734	8734	Survey & Conn.	Survey & Conn.
2-Apr-09	15:45	18:55	3.17	8734	8825	Drilling	Drilling - (WOB:8;GPM :440;RPM:45)
2-Apr-09	18:55	19:05	0.17	8825	8825	Survey & Conn.	Survey & Conn.
2-Apr-09	19:05	21:05	2.00	8825	8916	Drilling	Drilling - (WOB:8;GPM :440;RPM:45)
2-Apr-09	21:05	21:15	0.17	8916	8916	Survey & Conn.	Survey & Conn.
2-Apr-09	21:15	21:50	0.58	8916	8924	Sliding	Sliding - (WOB:45;GPM :440;TFO:-15)
2-Apr-09	21:50	24:00	2.17	8924	9008	Drilling	Drilling - (WOB:8;GPM :440;RPM:45)



Scientific Drilling
Rocky Mountain Operations

JOB NO.:	42DEF0903135	Report Time:	2400	10 of 14
COMPANY:	Kerr McGee Oil and Gas Onshore LP	API JOB #	43-047-40202	
LOCATION:	NBU 921-27C Pad	WORK ORDER#	136305	
RIG NAME:	Ensign 139	FIELD:	Natural Buttes Unit	
STATE:	Utah	Township:	Sec 27 T9S R21E	
COUNTY:	Uintah	SECT/RANGE:		Rocky Mountain
WELL NAME:	NBU 921-27D2AS			

From Friday, April 03, 2009 at 0000 to Friday, April 03, 2009 at 2400

DRILLING SUMMARY

Start Depth	9008.00	Rotary Hours	21.42	WOB	16	Pick UP	240	Slack Off	170	SPM
End Depth	9697.00	Circulating Hours	0.00	RAB	195	SPP	2160	FlowRate	440 - 460	112
Total Drilled:	689.00	Avg. Total ROP:	30.51							
Total Rotary Drilled:	674.00	Avg. Rotary ROP:	31.47	Type	LSND		PV	20	SOLID	14.3
Total Drilled Sliding:	15.00	Avg. Slide ROP:	12.86	Weight	11.2	GAS	0	YP	11	BHT°
Slide Hours:	1.17	Percent Rotary:	97.82	Viscosity	43	SAND	0.75	PH	9	Flow T°
Below Rotary Hrs.	24.00	Percent Slide:	2.18	Chlorides	2500	WL	8			Oil %

PERSONNEL

Lead Directional :	Bob Brewer	Size	Lb/ft	Set Depth	BHA					
Second Directional :	Derrick Wilson/Chad Middleton				BHA # 2: Q506X 6x14's, 6.5 MUD MOTOR 1.5, 6.5 NM Pony, 6.5 HOS, 6.5 NMDC, 6.5 HOS, 6.5 GAP , 6.5 NMDC, 6.5 NM Pony, 30 JTS HWDP,					
MWD Operator1	Rick Perry									
MWD Operator2	Tad Heil									
Directional Company:	Scientific Drilling Int.									
Geologist:		Signature:								
Company Man:	Dale O Driscoll									
Incl. In:	0.52	Azm. In:	87.23	Incl. Out:	0.47	Azm. Out:	216.68			

GENERAL COMMENT

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
3-Apr-09	00:00	00:15	0.25	9008	9008	Survey & Conn.	Survey & Conn.
3-Apr-09	00:15	01:25	1.17	9008	9023	Sliding	Sliding - (WOB:8;GPM :440;TFO:-15)
3-Apr-09	01:25	03:20	1.92	9023	9097	Drilling	Drilling - (WOB:8;GPM :440;RPM:45)
3-Apr-09	03:20	03:30	0.17	9097	9097	Survey & Conn.	Survey & Conn.
3-Apr-09	03:30	06:45	3.25	9097	9190	Drilling	Drilling - (WOB:8;GPM :440;RPM:45)
3-Apr-09	06:45	07:00	0.25	9190	9190	Survey & Conn.	Survey & Conn.
3-Apr-09	07:00	12:00	5.00	9190	9371	Drilling	Drilling - (WOB:8;GPM :440;RPM:45)
3-Apr-09	12:00	12:30	0.50	9371	9371	Survey & Conn.	Survey & Conn.
3-Apr-09	12:30	22:00	9.50	9371	9643	Drilling	Drilling - (WOB:16;GPM :460;RPM:45)
3-Apr-09	22:00	22:15	0.25	9643	9643	Survey & Conn.	Survey & Conn.
3-Apr-09	22:15	24:00	1.75	9643	9697	Drilling	Drilling - (WOB:16;GPM :460;RPM:45)



Scientific Drilling
Rocky Mountain Operations

JOB NO.:	42DEF0903135	Report Time:	2400	11 of 14
COMPANY:	Kerr McGee Oil and Gas Onshore LP	API JOB #:	43-047-40202	
LOCATION:	NBU 921-27C Pad	WORK ORDER#:	136305	
RIG NAME:	Ensign 139	FIELD:	Natural Buttes Unit	
STATE:	Utah	Township:	Sec 27 T9S R21E	
COUNTY:	Uintah	SECT/RANGE:	Rocky Mountain	
WELL NAME:	NBU 921-27D2AS			

From Saturday, April 04, 2009 at 0000 to Saturday, April 04, 2009 at 2400

DRILLING SUMMARY

Start Depth	9697.00	Rotary Hours	22.17	WOB	16	Pick UP	240	Slack Off	170	SPM
End Depth	10141.00	Circulating Hours	0.00	RAB	195	SPP	2160	FlowRate	440 - 460	112

Total Drilled:	444.00	Avg. Total ROP:	19.10	Mud Data						
Total Rotary Drilled:	431.00	Avg. Rotary ROP:	19.44	Type	LSND		PV	20	SOLID	16.3
Total Drilled Sliding:	13.00	Avg. Slide ROP:	12.00	Weight	11.6	GAS	0	YP	8	BHT°
Slide Hours:	1.08	Percent Rotary:	97.07	Viscosity	42	SAND	1	PH	9	Flow T°
Below Rotary Hrs.	24.00	Percent Slide:	2.93	Chlorides	2200	WL	8			Oil %

PERSONNEL

Lead Directional :	Bob Brewer	Size	Lb/ft	Set Depth	Signature: 					
Second Directional :	Derrick Wilson/Chad Middleton									
MWD Operator1	Rick Perry									
MWD Operator2	Tad Heil									
Directional Company:	Scientific Drilling Int.									
Geologist:										
Company Man:	Sid Armstrong									
Incl. In:	0.47	Azm. In:	216.68	Incl. Out:	0.81	Azm. Out:	143.11			

GENERAL COMMENT

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
4-Apr-09	00:00	02:10	2.17	9697	9736	Drilling	Drilling - (WOB:16;GPM :460;RPM:45)
4-Apr-09	02:10	02:30	0.33	9736	9736	Survey & Conn.	Survey & Conn.
4-Apr-09	02:30	02:45	0.25	9736	9741	Sliding	Sliding - (WOB:8;GPM :440;TFO:-15)
4-Apr-09	02:45	03:05	0.33	9741	9746	Drilling	Drilling - (WOB:16;GPM :460;RPM:45)
4-Apr-09	03:05	03:55	0.83	9746	9754	Sliding	Sliding - (WOB:8;GPM :440;TFO:15)
4-Apr-09	03:55	05:00	1.08	9754	9778	Drilling	Drilling - (WOB:16;GPM :460;RPM:45)
4-Apr-09	05:00	11:45	6.75	9778	9915	Drilling	Drilling - (WOB:16;GPM :460;RPM:45)
4-Apr-09	11:45	12:10	0.42	9915	9915	Rig Service-Inhole	Rig Service-Inhole
4-Apr-09	12:10	24:00	11.83	9915	10141	Drilling	Drilling - (WOB:16;GPM :460;RPM:55)



Scientific Drilling
Rocky Mountain Operations

JOB NO.:	42DEF0903135	Report Time:	2400	12 of 14
COMPANY:	Kerr McGee Oil and Gas Onshore LP	API JOB #	43-047-40202	
LOCATION:	NBU 921-27C Pad	WORK ORDER#	136305	
RIG NAME:	Ensign 139	FIELD:	Natural Buttes Unit	
STATE:	Utah	Township:	Sec 27 T9S R21E	
COUNTY:	Uintah	SECT/RANGE:		Rocky Mountain
WELL NAME:	NBU 921-27D2AS			

From Sunday, April 05, 2009 at 0000 to Sunday, April 05, 2009 at 2400

DRILLING SUMMARY

Start Depth	10141.00	Rotary Hours	19.08	WOB	16	Pick UP	240	Slack Off	170	SPM
End Depth	10413.00	Circulating Hours	0.00	RAB	195	SPP	2160	FlowRate	460 - 460	112
Total Drilled:	272.00	Avg. Total ROP:	14.25							
Total Rotary Drilled:	272.00	Avg. Rotary ROP:	14.25	Type	LSND		PV	20	SOLID	16.3
Total Drilled Sliding:	0.00	Avg. Slide ROP:	NA	Weight	11.6	GAS	0	YP	8	BHT°
Slide Hours:	0.00	Percent Rotary:	100.00	Viscosity	42	SAND	1	PH	9	Flow T°
Below Rotary Hrs.	24.00	Percent Slide:	.00	Chlorides	2200	WL	8			Oil %

PERSONNEL

Lead Directional :	Bob Brewer	Size	Lb/ft	Set Depth	Signature: 	BHA # 2: Q506X 6x14's, 6.5 MUD MOTOR 1.5, 6.5 NM Pony, 6.5 HOS, 6.5 NMDC, 6.5 HOS, 6.5 GAP , 6.5 NMDC, 6.5 NM Pony, 30 JTS HWDP,				
Second Directional :	Derrick Wilson/Chad Middleton									
MWD Operator1	Rick Perry									
MWD Operator2	Tad Heil									
Directional Company:	Scientific Drilling Int.									
Geologist:										
Company Man:	Sid Armstrong									
Incl. In:	0.81	Azm. In:	143.11	Incl. Out:	0.89	Azm. Out:	119.44			

GENERAL COMMENT

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
5-Apr-09	00:00	01:35	1.58	10141	10154	Drilling	Drilling - (WOB:16;GPM :460;RPM:55)
5-Apr-09	01:35	02:45	1.17	10154	10154	Work Pipe	Work tight hole
5-Apr-09	02:45	05:50	3.08	10154	10186	Drilling	Drilling - (WOB:16;GPM :460;RPM:55)
5-Apr-09	05:50	06:10	0.33	10186	10186	Survey & Conn.	Survey & Conn.
5-Apr-09	06:10	08:35	2.42	10186	10231	Drilling	Drilling - (WOB:16;GPM :460;RPM:55)
5-Apr-09	08:35	10:10	1.58	10231	10231	Work Pipe	Work Pipe
5-Apr-09	10:10	16:00	5.83	10231	10313	Drilling	Drilling - (WOB:16;GPM :460;RPM:55)
5-Apr-09	16:00	16:30	0.50	10313	10313	Survey & Conn.	Survey & Conn.
5-Apr-09	16:30	17:20	0.83	10313	10313	Rig Service-Inhole	Rig Service-Inhole
5-Apr-09	17:20	23:30	6.17	10313	10413	Drilling	Drilling - (WOB:16;GPM :460;RPM:55)
5-Apr-09	23:30	24:00	0.50	10413	10413	Survey & Conn.	Survey & Conn.



Scientific Drilling
Rocky Mountain Operations

JOB NO.:	42DEF0903135	Report Time:	2400	13 of 14
COMPANY:	Kerr McGee Oil and Gas Onshore LP	API JOB #	43-047-40202	
LOCATION:	NBU 921-27C Pad	WORK ORDER#	136305	
RIG NAME:	Ensign 139	FIELD:	Natural Buttes Unit	
STATE:	Utah	Township:	Sec 27 T9S R21E	
COUNTY:	Uintah	SECT/RANGE:		Rocky Mountain
WELL NAME:	NBU 921-27D2AS			

From Monday, April 06, 2009 at 0000 to Monday, April 06, 2009 at 2400

DRILLING SUMMARY

Start Depth	10413.00	Rotary Hours	5.00	WOB	0	Pick UP	360	Slack Off	160	SPM
End Depth	10470.00	Circulating Hours	4.42	RAB	195	SPP	1900	FlowRate	440 - 460	100
Total Drilled:	57.00	Avg. Total ROP:	11.40	Mud Data						
Total Rotary Drilled:	57.00	Avg. Rotary ROP:	11.40	Type	LSND			PV	20	SOLID
Total Drilled Sliding:	0.00	Avg. Slide ROP:	NA	Weight	11.6	GAS	0	YP	8	BHT°
Slide Hours:	0.00	Percent Rotary:	100.00	Viscosity	42	SAND	1	PH	9	Flow T°
Below Rotary Hrs.	24.00	Percent Slide:	.00	Chlorides	2200	WL	8			Oil %

PERSONNEL

Lead Directional :	Bob Brewer	Size	Lb/ft	Set Depth	BHA					
Second Directional :	Derrick Wilson/ Brandon Burkett/ Chad Middleton				BHA # 2: Q506X 6x14's, 6.5 MUD MOTOR 1.5, 6.5 NM Pony, 6.5 HOS, 6.5 NMDC, 6.5 HOS, 6.5 GAP , 6.5 NMDC, 6.5 NM Pony, 30 JTS HWDP,					
MWD Operator1	Kick Penny									
MWD Operator2	Tad Heil									
Directional Company:	Scientific Drilling Int.	Signature:								
Geologist:										
Company Man:	Sid Armstrong									
Incl. In:	0.89	Azm. In:	119.44	Incl. Out:	0.6	Azm. Out:	104.79			

GENERAL COMMENT

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
6-Apr-09	00:00	04:00	4.00	10413	10459	Drilling	Drilling -(WOB:16;GPM :460;RPM:55)
6-Apr-09	04:00	05:00	1.00	10459	10459	Work Pipe	Work Pipe
6-Apr-09	05:00	06:00	1.00	10459	10470	Drilling	Drilling - (WOB:16;GPM :460;RPM:55)
6-Apr-09	06:00	09:15	3.25	10470	9950	Circulating	Circ and back ream out of hole
6-Apr-09	09:15	11:10	1.92	9950	9950	POOH	POOH
6-Apr-09	11:10	12:20	1.17	9950	9950	Circulating	Circulating, work on tongs
6-Apr-09	12:20	19:00	6.67	9950	9950	POOH	POOH, tight hole and tool jts
6-Apr-09	19:00	24:00	5.00	9950	2250	POOH	POOH, tight hole and tool jts



Scientific Drilling
Rocky Mountain Operations

JOB NO.:	42DEF0903135	Report Time:	2400	14 of 14
COMPANY:	Kerr McGee Oil and Gas Onshore LP	API JOB #	43-047-40202	
LOCATION:	NBU 921-27C Pad	WORK ORDER#	136305	
RIG NAME:	Ensign 139	FIELD:	Natural Buttes Unit	
STATE:	Utah	Township:	Sec 27 T9S R21E	
COUNTY:	Uintah	SECT/RANGE:		Rocky Mountain
WELL NAME:	NBU 921-27D2AS			

From Tuesday, April 07, 2009 at 0000 to Tuesday, April 07, 2009 at 2400

DRILLING SUMMARY				Drilling Parameters														
Start Depth	0.00	Rotary Hours	0.00	WOB	0	Pick UP	360	Slack Off	160	SPM								
End Depth	0.00	Circulating Hours	0.00	RAB	195	SPP	0	FlowRate	440 - 440	0								
Total Drilled:	0.00	Avg. Total ROP:	NA	Mud Data														
Total Rotary Drilled:	0.00	Avg. Rotary ROP:	NA	Type	LSND		PV	20	SOLID	16.3								
Total Drilled Sliding:	0.00	Avg. Slide ROP:	NA	Weight	11.6	GAS	0	YP	8	BHT°	210							
Slide Hours:	0.00	Percent Rotary:	NA	Viscosity	42	SAND	1	PH	9	Flow T°	0							
Below Rotary Hrs.	24.00	Percent Slide:	NA	Chlorides	2200	WL	8			Oil %	0							
PERSONNEL				cASING				BHA										
Lead Directional :	Bob Brewer			Size	Lb/ft	Set Depth	Signature: BHA # 2:Q506X 6x14's, 6.5 MUD MOTOR 1.5, 6.5 NM Pony, 6.5 HOS, 6.5 NMDC, 6.5 HOS, 6.5 GAP , 6.5 NMDC, 6.5 NM Pony, 30 JTS HWDP,											
Second Directional :	Brandon Burkett/ Chad Middleton																	
MWD Operator1	Rick Perry																	
MWD Operator2	Tad Heil																	
Directional Company:	Scientific Drilling Int.																	
Geologist:																		
Company Man:	Sid Armstrong			Incl. In:	0.6	Azm. In:	104.79	Incl. Out:	0.6	Azm. Out:	104.79							

GENERAL COMMENT

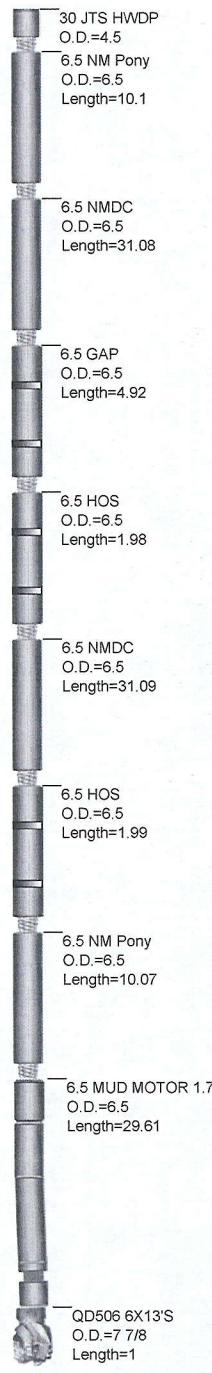
Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
7-Apr-09	00:00	02:00	2.00	2250	0	POOH	POOH
7-Apr-09	02:00	04:00	2.00	0	0	Change BHA	Stand back tools, Break bit, L/D MM
7-Apr-09	04:00	24:00	20.00	0	0	Other	Log and run casing

BHA # 1



JOB NO.: 42DEF0903135 Work Order: 136305
 COMPANY: Kerr McGee Oil and Gas Onshore LP
 LOCATION: NBU 921-27C Pad
 RIG NAME: Ensign 139
 STATE: Utah
 COUNTY: Uintah
 WELL NAME: NBU 921-27D2AS

FIELD:	Natural Buttes Unit
Township:	Sec 27 T9S R21E
SECT. RANGE:	Rocky Mountain
Lead DD:	Phillip Alvarado
Co. Man:	Dale O Driscoll
BHA TYPE:	Steerable Assembly
BHA WT:	33037
Wt @ Jars:	N/A

Time and Depths		MOTOR DATA		Drilling Parameters			
Date In:	26-Mar-09 @ 12:00	6.5 Mud Motor 1.75 bend		SO/PU:	100 - 146 / 100-220		
Date Out:	01-Apr-09 @ 16:00	MFG.: Scientific Drilling Int.		Rot Strg Wt:	100-170		
Hrs In Hole:	148.00	PAD OD:	6 3/4	WOB:	0 - 25		
Start Depth:	2387.00	NB Stab:	0	TORQ:	0 - 270		
End Depth:	8658.00	Bit to Bend:	5.28	SPP:	0 - 2200		
Total Drilled:	6271.00	Bent Hsg/Sub°:	1.75 /	Motor RPM:	- 67		
Avg. Total ROP:	60.30	Lobe/Stage:	7:8 / 3.3	Rotary RPM:	40 - 45		
Circ Hrs: Tot/Only	110.00 / 6.00	Rev/GAL:	0.14	Flow Rate:	0 - 476		
Percent Slide:	20.44	Rotor Jet:	0	Avg Diff:			
Percent Hrs:	31.17	Prop BUR:	10.35	Stall Pres.:			
Slide Hours:	32.42	Act BUR:		Off Bot Pres.:			
Total Sliding:	1282.00	Mud Data		Bit Record			
Avg. Slide ROP:	39.55	Type	LSND	BAKER / QD506 6X13'S			
Percent Rotary:	79.56	WT:	11.2	GAS:	0	Run #: 1	
Percent Hrs:	68.83	Vis:	43	PV:	20	Type Bit: PDC	
Rotary Hours:	71.58	WL:	8	PH:	9	IADC#:	
Total Rotary:	4989.00	SOL:	14.3	SAND:	0.75	JETS: 6-13	
Avg. Rotary ROP:	69.69	Oil %:	0	T °:	0	Bit Drop: 387 PSI @ 476 GPM	
Reason POOH:		Chlor:	2500	YP:	11	Cond.:	
MWD Spacing	Gamma: 0 GYRO: 0	Restiv: 0 DNSC: 2200	Sensor: 55 Sonic: 0	Last Casing	Shoe @:	Hanger @:	
INC IN: .0	INC OUT: .2	AZM IN: .00	AZM OUT: 358.59				

BHA Detail

Description	Serial #	I.D.	O.D.	Length	Sum	Top Conn	MFG.
QD506 6X13'S	7124401		7 7/8	1.00	1.00	4 1/2 REGP	
6.5 MUD MOTOR 1.75	6461		6.5	29.61	30.61	4 1/2 XHB	
6.5 NM Pony	125-113	3.25	6.5	10.07	40.68	4 1/2 XHB	
6.5 HOS	8-458	3.25	6.5	1.99	42.67	4 1/2 XHB	
6.5 NMDC	122-354	3.25	6.5	31.09	73.76	4 1/2 XHB	
6.5 HOS	8-457	3.25	6.5	1.98	75.74	4 1/2 XHB	
6.5 GAP	69-150	2 7/8	6.5	4.92	80.66	4 1/2 XHB	
6.5 NMDC	122-359	3.25	6.5	31.08	111.74	4 1/2 XHB	
6.5 NM Pony	125-098	3.25	6.5	10.10	121.84	4 1/2 XHB	
30 JTS HWDP	RIG 139	2.88	4.5	922.07	1043.91	4 1/2 XHB	



JOB NO.: 42DEF0903135
COMPANY: Kerr McGee Oil and Gas Onshore LP
LOCATION: NBU 921-27C Pad
RIG NAME: Ensign 139
STATE: Utah
COUNTY: County
WELL NAME: NBU 921-27D2AS

FIELD: Natural Buttes Unit
Township: Sec 27 T9S R21E
Range: Rocky Mountain

MOTOR INFORMATION		
Desc: 6.5 Mud Motor 1.75 bend		
Bent Hsg/Sub: 1.75 / 0	Bit to Bend: 5.28	
PAD OD: 6 3/4		NB Stab:

Slide Report for BHA # 1

Note: Surveys listed are interpolated from the actual surveys

#	Date	Drill Mode	Start Time	End Time	Hours	Start MD	End MD	Depth Drilled	WOB	ROP	RPM	Surf. Torque	Flow Rate	SPP	TFO	INC	AZM	DLS	Note
1	26-Mar	Drilling	20:45	22:00	1.25	2387	2521	134	10	107.2	40	0	334	575		0.68	111.25	0.14	
1	26-Mar	Drilling	22:00	22:50	0.83	2521	2632	111	10	133.2	40	0	476	1000		1.02	85.22	3.63	
1	26-Mar	Sliding	22:50	23:15	0.42	2632	2647	15	10	36.0	0	0	476	1000	295	1.35	53.33	3.63	
1	26-Mar	Drilling	23:15	23:35	0.33	2647	2677	30	10	90.0	40	0	476	1000		2.02	349.55	3.63	
1	26-Mar	Sliding	23:35	23:55	0.33	2677	2692	15	10	45.0	0	0	476	1000	295	2.35	317.67	3.63	
1	26-Mar	Drilling	23:55	24:00	0.08	2692	2710	18	10	216.0	40	0	476	1000		2.77	290.74	2.69	
1	27-Mar	Drilling	00:00	00:15	0.25	2710	2723	13	10	52.0	40	0	476	1000		3.10	292.58	2.69	
1	27-Mar	Sliding	00:15	00:30	0.25	2723	2735	12	10	48.0	0	0	476	1000	330	3.40	294.28	2.69	
1	27-Mar	Drilling	00:30	00:55	0.42	2735	2765	30	10	72.0	40	0	476	1000		4.16	298.54	2.69	
1	27-Mar	Sliding	00:55	01:10	0.25	2765	2778	13	10	52.0	0	0	476	1000	330	4.49	300.38	2.69	
1	27-Mar	Drilling	01:10	01:30	0.33	2778	2811	33	10	99.0	40	0	476	1000		5.32	301.77	2.56	
1	27-Mar	Sliding	01:30	01:45	0.25	2811	2825	14	10	56.0	0	0	476	1000	292	5.66	300.69	2.56	
1	27-Mar	Drilling	01:45	02:00	0.25	2825	2857	32	10	128.0	40	0	476	1000		6.43	298.23	2.56	
1	27-Mar	Sliding	02:10	02:30	0.33	2857	2872	15	10	45.0	0	0	476	1300	-15	6.80	297.07	2.56	
1	27-Mar	Drilling	02:30	02:45	0.25	2872	2903	31	10	124.0	40	0	476	1300		7.72	295.66	3.45	
1	27-Mar	Sliding	02:45	03:05	0.33	2903	2921	18	10	54.0	0	0	476	1300	-15	8.34	295.31	3.45	
1	27-Mar	Drilling	03:05	03:25	0.33	2921	2948	27	10	81.0	40	0	476	1300		9.27	294.79	3.45	
1	27-Mar	Sliding	03:35	04:00	0.42	2948	2966	18	10	43.2	0	0	476	1300	-15	9.89	294.44	3.45	
1	27-Mar	Drilling	06:00	06:15	0.25	2966	2990	24	5	96.0	45	0	476	1300		10.46	293.09	2.22	
1	27-Mar	Sliding	06:15	06:40	0.42	2990	3007	17	5	40.8	0	0	476	1300	-15	10.71	291.60	2.22	
1	27-Mar	Drilling	06:40	07:15	0.58	3007	3036	29	5	49.7	45	0	476	1300		11.14	289.06	2.22	
1	27-Mar	Sliding	07:25	07:45	0.33	3036	3051	15	5	45.0	0	0	476	1300	1	11.36	287.75	2.22	
1	27-Mar	Drilling	07:45	08:00	0.25	3051	3081	30	5	120.0	45	0	476	1300		11.90	286.40	2.11	
1	27-Mar	Sliding	08:00	08:15	0.25	3081	3094	13	6	52.0	0	0	476	1250	10	12.17	286.44	2.11	
1	27-Mar	Drilling	08:15	08:30	0.25	3094	3126	32	5	128.0	45	0	476	1250		12.84	286.55	2.11	
1	27-Mar	Sliding	08:40	09:00	0.33	3126	3146	20	6	60.0	0	0	476	1250	15	13.27	286.62	2.11	
1	27-Mar	Drilling	09:00	09:15	0.25	3146	3171	25	5	100.0	45	0	476	1250		14.04	286.71	4.01	

Slide Report for BHA # 1

Note: Surveys listed are interpolated from the actual surveys

#	Date	Drill Mode	Start Time	End Time	Hours	Start MD	End MD	Depth Drilled	WOB	ROP	RPM	Surf. Torque	Flow Rate	SPP	TFO	INC	AZM	DLS	Note
1	27-Mar	Sliding	09:15	09:35	0.33	3171	3191	20	6	60.0	0	0	476	1250	10	14.84	286.78	4.01	
1	27-Mar	Drilling	09:35	09:50	0.25	3191	3217	26	11	104.0	45	0	476	1320		15.89	286.88	4.01	
1	27-Mar	Sliding	10:00	10:20	0.33	3217	3239	22	10	66.0	0	0	476	1320	20	16.77	286.96	4.01	
1	27-Mar	Drilling	10:20	10:40	0.33	3239	3262	23	11	69.0	45	0	476	1320		17.39	287.44	2.13	
1	27-Mar	Sliding	10:40	11:00	0.33	3262	3278	16	10	48.0	45	0	476	1320	20	17.70	287.95	2.13	
1	27-Mar	Drilling	11:00	11:10	0.17	3278	3307	29	11	174.0	45	0	476	1320		18.25	288.88	2.13	
1	27-Mar	Sliding	13:50	14:20	0.50	3307	3327	20	10	40.0	0	0	476	1320	30	18.62	289.52	2.13	
1	27-Mar	Drilling	14:20	14:40	0.33	3327	3352	25	11	75.0	45	0	476	1320		19.11	289.87	2.02	
1	27-Mar	Sliding	14:40	15:00	0.33	3352	3371	19	10	57.0	0	0	476	1320		19.50	289.82	2.02	
1	27-Mar	Drilling	15:00	15:10	0.17	3371	3398	27	11	162.0	45	0	476	1350		20.04	289.74	2.02	
1	27-Mar	Sliding	15:20	15:45	0.42	3398	3421	23	10	55.2	0	0	476	1320	30	20.51	289.67	2.02	
1	27-Mar	Drilling	15:45	15:55	0.17	3421	3443	22	11	132.0	45	0	476	1320		20.85	291.10	3.97	
1	27-Mar	Sliding	15:55	16:25	0.50	3443	3468	25	10	50.0	0	0	476	1320	30	21.18	293.69	3.97	
1	27-Mar	Drilling	16:25	16:35	0.17	3468	3488	20	11	120.0	45	0	476	1320		21.44	295.76	3.97	
1	27-Mar	Sliding	16:45	17:10	0.42	3488	3511	23	10	55.2	0	0	476	1320	15	21.74	298.14	3.97	
1	27-Mar	Drilling	17:10	17:25	0.25	3511	3534	23	11	92.0	45	0	476	1320		21.97	298.57	1.56	
1	27-Mar	Sliding	17:25	18:00	0.58	3534	3559	25	10	42.9	0	0	476	1320	15	22.17	297.69	1.56	
1	27-Mar	Drilling	18:00	18:15	0.25	3559	3580	21	11	84.0	45	0	476	1320		22.34	296.94	1.56	
1	27-Mar	Sliding	18:25	18:50	0.42	3580	3605	25	10	60.0	0	0	476	1320	-15	22.54	296.06	1.56	
1	27-Mar	Drilling	18:50	19:05	0.25	3605	3629	24	11	96.0	45	0	476	1320		23.47	295.84	4.67	
1	27-Mar	Sliding	19:05	19:35	0.50	3629	3659	30	10	60.0	0	0	476	1320	1	24.87	295.78	4.67	
1	27-Mar	Drilling	19:35	19:50	0.25	3659	3670	11	11	44.0	45	0	476	1320		25.38	295.75	4.67	
1	27-Mar	Sliding	20:00	20:45	0.75	3670	3705	35	10	46.7	0	0	476	1320	1	27.00	295.66	4.36	
1	27-Mar	Drilling	20:45	21:00	0.25	3705	3718	13	11	52.0	45	0	476	1320		27.57	295.55	4.36	
1	27-Mar	Sliding	21:00	21:35	0.58	3718	3745	27	10	46.3	0	0	476	1320	1	28.74	295.32	4.36	
1	27-Mar	Drilling	21:35	21:45	0.17	3745	3760	15	11	90.0	45	0	476	1320		29.39	295.20	4.36	
1	27-Mar	Sliding	21:55	22:25	0.50	3760	3780	20	10	40.0	0	0	476	1320	1	30.26	295.03	4.36	
1	27-Mar	Drilling	22:25	22:45	0.33	3780	3807	27	11	81.0	45	0	476	1320		31.13	294.66	2.60	
1	27-Mar	Sliding	22:45	23:10	0.42	3807	3832	25	10	60.0	0	0	476	1320	1	31.74	294.22	2.60	
1	27-Mar	Drilling	23:10	23:25	0.25	3832	3852	20	11	80.0	45	0	476	1320		32.22	293.87	2.60	
1	27-Mar	Sliding	23:35	23:50	0.25	3852	3867	15	10	60.0	0	0	476	1320	1	32.59	293.61	2.60	
1	27-Mar	Drilling	23:50	24:00	0.17	3867	3898	31	11	186.0	45	0	476	1320		33.02	292.89	1.62	
1	28-Mar	Sliding	00:00	00:30	0.50	3898	3908	10	10	20.0	0	270	476	1320	1	33.06	292.61	1.62	
1	28-Mar	Drilling	00:30	00:40	0.17	3908	3943	35	11	210.0	45	270	476	1320		33.21	291.61	1.62	
1	28-Mar	Sliding	00:50	01:30	0.67	3943	3958	15	10	22.5	0	270	476	1320	1	33.28	291.18	1.62	

Slide Report for BHA # 1

Note: Surveys listed are interpolated from the actual surveys

#	Date	Drill Mode	Start Time	End Time	Hours	Start MD	End MD	Depth Drilled	WOB	ROP	RPM	Surf. Torque	Flow Rate	SPP	TFO	INC	AZM	DLS	Note
1	28-Mar	Drilling	01:30	01:45	0.25	3958	3989	31	11	124.0	45	270	476	1320		33.28	290.91	0.55	
1	28-Mar	Sliding	01:45	02:10	0.42	3989	4004	15	10	36.0	0	270	476	1320	30	33.22	291.02	0.55	
1	28-Mar	Drilling	02:10	02:25	0.25	4004	4034	30	11	120.0	45	270	476	1320		33.11	291.24	0.55	
1	28-Mar	Sliding	02:35	02:50	0.25	4034	4044	10	10	40.0	0	270	476	1320	30	33.07	291.31	0.55	
1	28-Mar	Drilling	02:50	03:20	0.50	4044	4081	37	11	74.0	45	270	476	1320		32.75	291.31	1.43	
1	28-Mar	Sliding	03:20	03:40	0.33	4081	4091	10	10	30.0	0	270	476	1320	30	32.62	291.24	1.43	
1	28-Mar	Drilling	03:40	03:55	0.25	4091	4126	35	11	140.0	45	270	476	1320		32.14	290.97	1.43	
1	28-Mar	Sliding	04:05	04:25	0.33	4126	4141	15	10	45.0	0	270	476	1320	30	31.93	290.86	1.43	
1	28-Mar	Drilling	04:25	04:45	0.33	4141	4173	32	11	96.0	45	270	476	1320		31.43	290.97	1.79	
1	28-Mar	Sliding	04:45	05:05	0.33	4173	4188	15	10	45.0	0	270	476	1320	30	31.17	291.13	1.79	
1	28-Mar	Drilling	05:05	05:25	0.33	4188	4217	29	11	87.0	45	270	476	1320		30.67	291.42	1.79	
1	28-Mar	Sliding	05:35	06:00	0.42	4217	4237	20	10	48.0	0	270	476	1320	30	30.33	291.63	1.79	
1	28-Mar	Drilling	06:00	06:15	0.25	4237	4265	28	11	112.0	45	270	476	1320		30.24	291.71	0.13	
1	28-Mar	Sliding	06:15	06:50	0.58	4265	4290	25	10	42.9	0	270	476	1320	10	30.27	291.73	0.13	
1	28-Mar	Drilling	06:50	07:00	0.17	4290	4303	13	11	78.0	45	270	476	1320		30.28	291.74	0.13	
1	28-Mar	Sliding	07:10	07:40	0.50	4303	4333	30		60.0	0	0				30.32	291.76	0.13	
1	28-Mar	Drilling	07:40	07:55	0.25	4333	4352	19	11	76.0	45	270	476	1320		30.34	291.87	0.33	
1	28-Mar	Sliding	07:55	08:25	0.50	4352	4377	25		50.0	0	270		1320	25	30.37	292.02	0.33	
1	28-Mar	Drilling	08:25	08:35	0.17	4377	4393	16	11	96.0	45	270	476	1390		30.39	292.12	0.33	
1	28-Mar	Sliding	08:45	09:10	0.42	4393	4425	32		76.8	0	270		1390	25	30.43	292.31	0.33	
1	28-Mar	Drilling	09:10	09:20	0.17	4425	4444	19	11	114.0	45	270	476	1390		30.68	293.01	2.31	
1	28-Mar	Sliding	09:20	09:50	0.50	4444	4474	30		60.0	0	270		1390	35	31.08	294.11	2.31	
1	28-Mar	Drilling	09:50	10:00	0.17	4474	4484	10	11	60.0	45	270	476	1390		31.21	294.47	2.31	
1	28-Mar	Sliding	10:10	10:25	0.25	4484	4509	25		100.0	0	270		1390	10	31.54	295.39	2.31	
1	28-Mar	Drilling	10:25	10:35	0.17	4509	4533	24	11	144.0	45	270	476	1390		31.84	295.18	1.76	
1	28-Mar	Sliding	10:35	11:05	0.50	4533	4558	25		50.0	0	270		1390	-10	32.14	294.59	1.76	
1	28-Mar	Drilling	11:05	11:10	0.08	4558	4574	16	7	192.0	45	270	476	1450		32.34	294.21	1.76	
1	28-Mar	Sliding	11:20	11:35	0.25	4574	4594	20		80.0	0	270		1450	1	32.58	293.73	1.76	
1	28-Mar	Drilling	11:35	11:50	0.25	4594	4625	31	7	124.0	45	270	476	1450		32.73	293.38	0.21	
1	28-Mar	Sliding	11:50	12:15	0.42	4625	4645	20		48.0	0	270		1450	15	32.74	293.30	0.21	
1	28-Mar	Drilling	12:15	12:25	0.17	4645	4666	21	7	126.0	45	270	476	1450		32.74	293.22	0.21	
1	28-Mar	Sliding	12:50	13:15	0.42	4666	4685	19		45.6	0	270		1450	20	32.75	293.15	0.21	
1	28-Mar	Drilling	13:15	13:30	0.25	4685	4715	30	7	120.0	45	270	476	1450		33.13	293.14	1.98	
1	28-Mar	Sliding	13:30	14:00	0.50	4715	4740	25		50.0	0	270		1450	20	33.62	293.18	1.98	
1	28-Mar	Drilling	14:00	14:15	0.25	4740	4755	15	7	60.0	45	270	476	1450		33.92	293.21	1.98	

Slide Report for BHA # 1

Note: Surveys listed are interpolated from the actual surveys

#	Date	Drill Mode	Start Time	End Time	Hours	Start MD	End MD	Depth Drilled	WOB	ROP	RPM	Surf. Torque	Flow Rate	SPP	TFO	INC	AZM	DLS	Note
1	28-Mar	Sliding	14:25	15:10	0.75	4755	4775	20		26.7	0	270		1450	20	34.31	293.24	1.98	
1	28-Mar	Drilling	15:10	15:50	0.67	4775	4847	72	7	108.0	45	270	476	1450		34.07	292.55	1.04	
1	28-Mar	Sliding	17:20	17:30	0.17	4847	4857	10		60.0	0	270		1450	20	33.99	292.43	1.04	
1	28-Mar	Drilling	17:30	18:20	0.83	4857	4938	81	7	97.2	45	270	476	1450		32.33	291.71	2.50	
1	28-Mar	Sliding	18:30	18:50	0.33	4938	4953	15		45.0	0	270		1450	20	31.96	291.59	2.50	
1	28-Mar	Drilling	18:50	19:10	0.33	4953	4986	33	7	99.0	45	270	476	1450		31.57	292.00	1.45	
1	28-Mar	Sliding	19:10	19:40	0.50	4986	5006	20		40.0	0	270		1450	20	31.53	292.55	1.45	
1	28-Mar	Drilling	19:40	19:55	0.25	5006	5030	24	7	96.0	45	270	476	1450		31.49	293.21	1.45	
1	28-Mar	Sliding	20:05	20:30	0.42	5030	5040	10		24.0	0	270		1450	20	31.47	293.49	1.45	
1	28-Mar	Drilling	20:30	21:50	1.33	5040	5168	128	7	96.0	45	270	476	1450		28.47	292.70	2.04	
1	28-Mar	Sliding	21:50	22:30	0.67	5168	5188	20		30.0	0	270		1450	20	28.59	293.51	2.04	
1	28-Mar	Drilling	22:30	22:45	0.25	5188	5207	19	7	76.0	45	270	476	1450		28.71	294.28	2.04	
1	28-Mar	Sliding	22:55	23:25	0.50	5207	5222	15		30.0	0	270		1450	20	28.80	294.88	2.04	
1	28-Mar	Drilling	23:25	24:00	0.58	5222	5257	35	7	60.0	45	270	476	1450		28.80	296.05	1.40	
1	29-Mar	Sliding	00:00	00:25	0.42	5257	5272	15	25	36.0	0	270		1450	20	28.71	296.44	1.40	
1	29-Mar	Drilling	00:25	01:20	0.92	5272	5345	73	14	79.6	45	270	476	1450		28.21	298.18	1.21	
1	29-Mar	Sliding	01:20	01:35	0.25	5345	5355	10	25	40.0	0	270		1450	20	28.11	298.32	1.21	
1	29-Mar	Drilling	01:35	01:50	0.25	5355	5390	35	14	140.0	45	270	476	1450		27.76	298.83	1.21	
1	29-Mar	Drilling	02:00	02:40	0.67	5390	5479	89	14	133.5	45	270	476	1450		25.99	298.63	2.54	
1	29-Mar	Drilling	02:50	03:25	0.58	5479	5570	91	14	156.0	45	270	476	1450		24.78	296.51	1.44	
1	29-Mar	Sliding	03:35	04:00	0.42	5570	5580	10	25	24.0	0	270	476	1450	20	24.71	296.22	1.44	
1	29-Mar	Drilling	04:00	04:25	0.42	5580	5617	37	14	88.8	45	270	476	1450		24.52	295.27	0.90	
1	29-Mar	Sliding	04:25	04:40	0.25	5617	5627	10	25	40.0	0	270	476	1450	-45	24.49	295.06	0.90	
1	29-Mar	Drilling	04:40	05:30	0.83	5627	5710	83	25	99.6	45	270	476	1450	-45	23.88	294.15	2.37	
1	29-Mar	Sliding	05:30	05:45	0.25	5710	5715	5	25	20.0	0	270	476	1450	180	23.77	294.26	2.37	
1	29-Mar	Drilling	05:45	06:50	1.08	5715	5841	126	25	116.3	45	270	476	1450		21.22	293.91	2.13	
1	29-Mar	Sliding	07:00	07:15	0.25	5841	5848	7	25	28.0	0	270	476	1450	-160	21.09	293.70	2.13	
1	29-Mar	Drilling	07:15	08:05	0.83	5848	5932	84	25	100.8	45	270	476	1450		19.86	294.91	1.71	
1	29-Mar	Sliding	08:10	08:30	0.33	5932	5949	17	25	51.0	45	270	476	1450	170	19.64	295.46	1.71	
1	29-Mar	Drilling	08:30	09:20	0.83	5949	6024	75	15	90.0	45	270	476	1780		17.68	293.73	3.07	
1	29-Mar	Sliding	09:30	09:50	0.33	6024	6036	12	25	36.0	0	270	476	1780	-160	17.34	293.32	3.07	
1	29-Mar	Drilling	09:50	10:30	0.67	6036	6115	79	15	118.5	45	270	476	1780		15.48	293.57	2.24	
1	29-Mar	Sliding	10:40	10:55	0.25	6115	6123	8	25	32.0	0	270	476	1630	180	15.30	293.68	2.24	
1	29-Mar	Drilling	10:55	11:45	0.83	6123	6108	-15	15	-18.0	45	270	476	1780		15.63	293.48	2.24	
1	29-Mar	Sliding	11:55	12:10	0.25	6108	6116	8	25	32.0	0	270	476	1780	180	15.46	293.58	2.24	

Slide Report for BHA # 1

Note: Surveys listed are interpolated from the actual surveys

#	Date	Drill Mode	Start Time	End Time	Hours	Start MD	End MD	Depth Drilled	WOB	ROP	RPM	Surf. Torque	Flow Rate	SPP	TFO	INC	AZM	DLS	Note
1	29-Mar	Drilling	12:10	13:10	1.00	6116	6297	181	15	181.0	45	270	476	1780		12.20	293.70	1.95	
1	29-Mar	Sliding	13:40	13:50	0.17	6297	6305	8	25	48.0	0	270	476	1780	-160	12.06	293.36	1.95	
1	29-Mar	Drilling	13:50	15:00	1.17	6305	6388	83	15	71.1	45	270	476	1780		10.74	293.66	1.58	
1	29-Mar	Sliding	15:10	15:25	0.25	6388	6394	6	25	24.0	0	270	476	1780	170	10.65	293.76	1.58	
1	29-Mar	Drilling	15:25	16:40	1.25	6394	6474	80	15	64.0	45	270	476	1780		9.24	293.98	1.82	
1	29-Mar	Sliding	16:50	17:00	0.17	6474	6480	6	25	36.0	0	270	476	1780	180	9.14	293.96	1.82	
1	29-Mar	Drilling	17:00	18:15	1.25	6480	6568	88	15	70.4	45	270	476	1780		7.67	292.47	1.63	
1	29-Mar	Sliding	18:15	18:40	0.42	6568	6573	5	25	12.0	0	270	476	1780	180	7.59	292.36	1.63	
1	29-Mar	Drilling	18:40	20:20	1.67	6573	6668	95	15	57.0	45	270	476	1780		6.33	288.32	1.36	
1	29-Mar	Sliding	20:30	21:20	0.83	6668	6673	5	25	6.0	0	270	476	1780	180	6.27	288.08	1.36	
1	29-Mar	Drilling	21:20	22:45	1.42	6673	6748	75	15	52.9	45	270	476	1780		5.08	292.63	1.83	
1	29-Mar	Sliding	22:55	23:30	0.58	6748	6758	10	25	17.1	0	270	476	1780	180	4.92	293.47	1.83	
1	29-Mar	Drilling	23:30	24:00	0.50	6758	6794	36	15	72.0	45	270	476	1780		4.34	293.84	1.62	
1	30-Mar	Drilling	00:00	00:45	0.75	6794	6845	51	15	68.0	45	270	476	1780		3.55	290.19	1.62	
1	30-Mar	Sliding	00:55	02:00	1.08	6845	6859	14	25	12.9	0	270	476	1780	180	3.33	289.18	1.62	
1	30-Mar	Drilling	02:00	03:45	1.75	6859	6927	68	15	38.9	45	270	476	1780		2.31	284.58	1.53	
1	30-Mar	Sliding	03:55	04:20	0.42	6927	6939	12	25	28.8	0	270	476	1780	180	2.13	283.78	1.53	
1	30-Mar	Drilling	04:20	05:30	1.17	6939	7018	79	15	67.7	45	270	476	1780		1.11	260.81	1.42	
1	30-Mar	Sliding	05:40	06:00	0.33	7018	7027	9	25	27.0	0	270	476	1780	90	1.00	257.55	1.42	
1	30-Mar	Drilling	06:00	07:00	1.00	7027	7108	81	18	81.0	45	270	476	1950		0.64	238.21	0.28	
1	30-Mar	Drilling	07:10	08:40	1.50	7108	7199	91	18	60.7	45	270	476	1950		0.64	226.61	0.13	
1	30-Mar	Drilling	08:50	09:50	1.00	7199	7291	92	18	92.0	45	270	476	1950		0.88	202.24	0.60	
1	30-Mar	Drilling	10:00	11:10	1.17	7291	7382	91	18	78.0	45	270	476	1950		1.08	229.73	1.08	
1	30-Mar	Sliding	11:30	11:50	0.33	7382	7392	10	25	30.0	0	0	476	1950	300	1.10	235.79	1.08	
1	30-Mar	Drilling	11:50	13:35	1.75	7392	7477	85	18	48.6	45	0	476	1950		0.42	248.28	1.07	
1	30-Mar	Sliding	13:45	14:05	0.33	7477	7489	12	25	36.0	0	0	476	2200	60	0.29	248.56	1.07	
1	30-Mar	Drilling	14:05	15:25	1.33	7489	7559	70	18	52.5	45	0	476	2200		0.31	62.82	0.47	
1	30-Mar	Drilling	15:30	16:55	1.42	7559	7650	91	18	64.2	45	0	476	2200		0.60	157.80	0.36	
1	30-Mar	Drilling	17:00	18:45	1.75	7650	7740	90	18	51.4	45	0	476	2200		0.77	153.17	0.15	
1	30-Mar	Drilling	18:55	20:35	1.67	7740	7832	92	18	55.2	45	0	476	2200		0.58	100.87	0.90	
1	31-Mar	Sliding	01:45	02:15	0.50	7832	7844	12	25	24.0	0	0	476	2200	15	0.54	90.95	0.90	
1	31-Mar	Drilling	02:15	04:05	1.83	7844	7922	78	18	42.5	45	0	476	2200		0.56	78.00	0.16	
1	31-Mar	Drilling	04:15	06:15	2.00	7922	8013	91	18	45.5	45	0	476	2200		0.60	91.25	0.21	
1	31-Mar	Drilling	06:25	08:10	1.75	8013	8104	91	18	52.0	45	0	476	2200		0.58	111.30	0.23	
1	31-Mar	Drilling	08:15	10:40	2.42	8104	8195	91	18	37.7	45	0	476	2200		0.51	103.44	0.24	

Slide Report for BHA # 1

Note: Surveys listed are interpolated from the actual surveys

#	Date	Drill Mode	Start Time	End Time	Hours	Start MD	End MD	Depth Drilled	WOB	ROP	RPM	Surf. Torque	Flow Rate	SPP	TFO	INC	AZM	DLS	Note
1	31-Mar	Drilling	11:05	13:30	2.42	8195	8284	89	18	36.8	45	0	476	2200		0.54	132.60	0.55	
1	31-Mar	Drilling	13:35	16:05	2.50	8284	8374	90	18	36.0	45	0	440	2020		0.66	157.40	0.19	
1	31-Mar	Drilling	16:10	18:00	1.83	8374	8465	91	18	49.6	45	0	440	2020		0.64	153.08	0.19	
1	31-Mar	Drilling	19:05	20:55	1.83	8465	8555	90	18	49.1	45	0	440	2020		0.30	296.39	0.53	
1	31-Mar	Sliding	22:15	23:05	0.83	8555	8569	14	25	16.8	45	0	476	2020	15	0.23	245.89	0.53	
1	31-Mar	Drilling	23:05	24:00	0.92	8569	8584	15	18	16.4	45	0	440	2020		0.16	191.79	0.53	
1	1-Apr	Drilling	00:00	03:05	3.08	8584	8648	64	18	20.8	45	0	440	2020		0.20	333.58	0.37	
1	1-Apr	Sliding	03:55	04:35	0.67	8648	8654	6	25	9.0	0	0	476	2020	15	0.21	348.59	0.37	
1	1-Apr	Drilling	04:35	04:50	0.25	8654	8658	4	18	16.0	45	0	440	2020		0.21	358.59	0.37	
Total Drilled:				6271	Avg. Total ROP:				60.30	DEPTH% - TIME %									
Total Rotary Drilled:				4989	Avg. Rotary ROP:				69.69	Percent Rotary: 79.56 - 68.83									
Total Drilled Sliding:				1282	Avg. Slide ROP:				39.55	Percent Slide: 20.44 - 31.17									

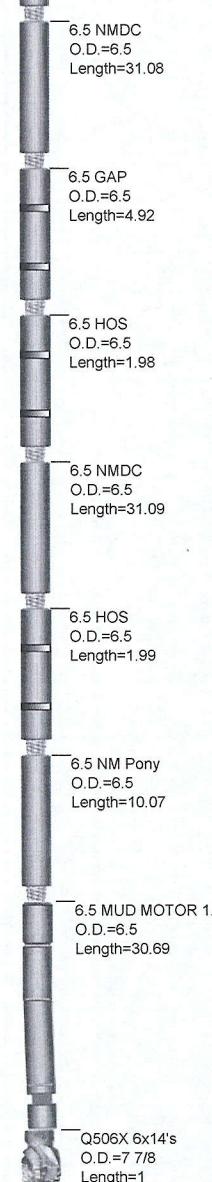
BHA # 2


JOB NO.: 42DEF0903135 Work Order: 136305
 COMPANY: Kerr McGee Oil and Gas Onshore LP
 LOCATION: NBU 921-27C Pad
 RIG NAME: Ensign 139
 STATE: Utah
 COUNTY: Uintah
 WELL NAME: NBU 921-27D2AS

FIELD:	Natural Buttes Unit
Township:	Sec 27 T9S R21E
SECT. RANGE:	Rocky Mountain
Lead DD:	Bob Brewer
Co. Man:	Sid Armstrong
BHA TYPE:	Steerable Assembly
BHA WT:	32869
Wt @ Jars:	N/A

Time and Depths		MOTOR DATA		Drilling Parameters	
Date In:	01-Apr-09 @ 16:00	6.5 1.5 bend, 7:8 lobe, 3.3 stage		SO/PU:	146 - 170 / 220-360
Date Out:	07-Apr-09 @ 04:00	MFG.:	Scientific Drilling	Rot Strg Wt:	170-195
Hrs In Hole:	132.00	PAD OD:	6 3/4	WOB:	0 - 45
Start Depth:	8658.00	NB Stab:	0	TORQ:	0 - 0
End Depth:	10470.00	Bit to Bend:	5.94	SPP:	1900 - 2160
Total Drilled:	1812.00	Bent Hsg/Sub°:	1.5 / 1.5	Motor RPM:	62
Avg. Total ROP:	22.37	Lobe/Stage:	7:8 / 3.3	Rotary RPM:	45 - 55
Circ Hrs: Tot/Only	86.58 / 5.58	Rev/GAL:	0.14	Flow Rate:	440 - 460
Percent Slide:	2.65	Rotor Jet:	0	Avg Diff:	
Percent Hrs:	4.32	Prop BUR:	8	Stall Pres.:	
Slide Hours:	3.50	Act BUR:		Off Bot Pres.:	
Total Sliding:	48.00	Mud Data		Bit Record	
Avg. Slide ROP:	13.71	Type	LSND	BAKER / Q506X 6x14's	
Percent Rotary:	97.35	WT:	11.6	Run #:	2
Percent Hrs:	95.68	Vis:	42	Type Bit:	PDC
Rotary Hours:	77.50	WL:	8	IADC#:	TFA: 0.902
Total Rotary:	1764.00	SOL:	16.3	JETS:	6-14
Avg. Rotary ROP:	22.76	Oil %:	0	Bit Drop:	278 PSI @ 460 GPM
Reason POOH:	TD	Chlor:	2200	Cond.:	Good
MWD Spacing	Gamma: 0 GYRO: 0	Restiv: 0 DNSC: 8657	Sensor: 59 Sonic: 0	Last Casing	in n.
INC IN: .2	INC OUT: .0	AZM IN: 358.59	AZM OUT: .00	Shoe @:	Hanger @:

BHA Detail							
Description	Serial #	I.D.	O.D.	Length	Sum	Top Conn	MFG.
Q506X 6x14's	7123470		7 7/8	1.00	1.00	4 1/2 REGP	
6.5 MUD MOTOR 1.5	6335		6.5	30.69	31.69	4 1/2 XHB	
6.5 NM Pony	125-113	3.25	6.5	10.07	41.76	4 1/2 XHB	
6.5 HOS	8-458	3.25	6.5	1.99	43.75	4 1/2 XHB	
6.5 NMDC	122-354	3.25	6.5	31.09	74.84	4 1/2 XHB	
6.5 HOS	8-457	3.25	6.5	1.98	76.82	4 1/2 XHB	
6.5 GAP	69-150	2 7/8	6.5	4.92	81.74	4 1/2 XHB	
6.5 NMDC	122-359	3.25	6.5	31.08	112.82	4 1/2 XHB	
6.5 NM Pony	125-098	3.25	6.5	10.10	122.92	4 1/2 XHB	
30 JTS HWDP	RIG 139	2.88	4.5	922.07	1044.99	4 1/2 XHB	





JOB NO.: 42DEF0903135
COMPANY: Kerr McGee Oil and Gas Onshore LP
LOCATION: NBU 921-27C Pad
RIG NAME: Ensign 139
STATE: Utah
COUNTY: County
WELL NAME: NBU 921-27D2AS

FIELD: Natural Buttes Unit
Township: Sec 27 T9S R21E
Range: Rocky Mountain

MOTOR INFORMATION	
Desc: 6.5 1.5 bend, 7:8 lobe, 3.3 stage	
Bent Hsg/Sub: 1.5 / 1.5	Bit to Bend: 5.94
PAD OD: 6 3/4	NB Stab:

Note: Surveys listed are interpolated from the actual surveys

Slide Report for BHA # 2

#	Date	Drill Mode	Start Time	End Time	Hours	Start MD	End MD	Depth Drilled	WOB	ROP	RPM	Surf. Torque	Flow Rate	SPP	TFO	INC	AZM	DLS	Note
2	2-Apr	Drilling	12:10	13:25	1.25	8658	8692	34	8	27.2	45	0	440	1990		0.21	50.11	0.14	
2	2-Apr	Sliding	13:25	14:05	0.67	8692	8704	12	45	18.0	0	0	440	2100	330	0.20	51.37	0.14	
2	2-Apr	Drilling	14:05	15:20	1.25	8704	8734	30	8	24.0	45	0	440	2100		0.16	54.53	0.14	
2	2-Apr	Drilling	15:45	18:55	3.17	8734	8825	91	8	28.7	45	0	440	2100		0.21	80.11	0.21	
2	2-Apr	Drilling	19:05	21:05	2.00	8825	8916	91	8	45.5	45	0	440	2100		0.43	89.54	0.28	
2	2-Apr	Sliding	21:15	21:50	0.58	8916	8924	8	8	13.7	0	0	440	2100	-15	0.45	88.99	0.28	
2	2-Apr	Drilling	21:50	24:00	2.17	8924	9008	84	8	38.8	45	0	440	2100		0.47	29.63	0.75	
2	3-Apr	Sliding	00:15	01:25	1.17	9008	9023	15	8	12.9	0	0	440	2100	-15	0.46	14.73	0.75	
2	3-Apr	Drilling	01:25	03:20	1.92	9023	9097	74	8	38.6	45	0	440	2100		0.36	344.92	0.20	
2	3-Apr	Drilling	03:30	06:45	3.25	9097	9190	93	8	28.6	45	0	440	2100		0.34	322.18	0.15	
2	3-Apr	Drilling	07:00	12:00	5.00	9190	9371	181	16	36.2	45	0	460	2160		0.39	279.19	0.21	
2	3-Apr	Drilling	12:30	22:00	9.50	9371	9643	272	16	28.6	45	0	460	2160		0.63	216.86	0.27	
2	3-Apr	Drilling	22:15	24:00	1.75	9643	9697	54	16	30.9	45	0	460	2160		0.76	219.73	0.26	
2	4-Apr	Drilling	00:00	02:10	2.17	9697	9736	39	16	18.0	45	0	460	2160		0.83	224.44	0.26	
2	4-Apr	Sliding	02:30	02:45	0.25	9736	9741	5	8	20.0	0	0	440	2160	15	0.84	225.05	0.26	
2	4-Apr	Drilling	02:45	03:05	0.33	9741	9746	5	16	15.0	45	0	460	2160		0.85	225.65	0.26	
2	4-Apr	Sliding	03:05	03:55	0.83	9746	9754	8	8	9.6	0	0	440	2160	15	0.87	226.62	0.26	
2	4-Apr	Drilling	03:55	05:00	1.08	9754	9778	24	16	22.2	45	0	460	2160		0.87	224.89	0.36	
2	4-Apr	Drilling	05:00	11:45	6.75	9778	9915	137	16	20.3	55	0	460	2160		0.84	191.94	0.37	
2	4-Apr	Drilling	12:10	24:00	11.83	9915	10141	226	16	19.1	55	0	460	2160		0.91	138.10	0.25	
2	5-Apr	Drilling	00:00	01:35	1.58	10141	10154	13	16	8.2	55	0	460	2160		0.89	139.95	0.25	
2	5-Apr	Drilling	02:45	05:50	3.08	10154	10186	32	16	10.4	55	0	460	2160		0.85	144.50	0.25	
2	5-Apr	Drilling	06:10	08:35	2.42	10186	10231	45	16	18.6	55	0	460	2160		0.82	144.77	0.49	
2	5-Apr	Drilling	10:10	16:00	5.83	10231	10313	82	16	14.1	55	0	460	2160		0.88	118.73	0.33	
2	5-Apr	Drilling	17:20	23:30	6.17	10313	10413	100	16	16.2	55	0	460	2160		0.60	104.79	0.00	
2	6-Apr	Drilling	00:00	04:00	4.00	10413	10459	46	16	11.5	55	0	460	2160		0.60	104.79	0.00	
2	6-Apr	Drilling	05:00	06:00	1.00	10459	10470	11	16	11.0	55	0	460	2160		0.60	104.79	0.00	

Slide Report for BHA # 2

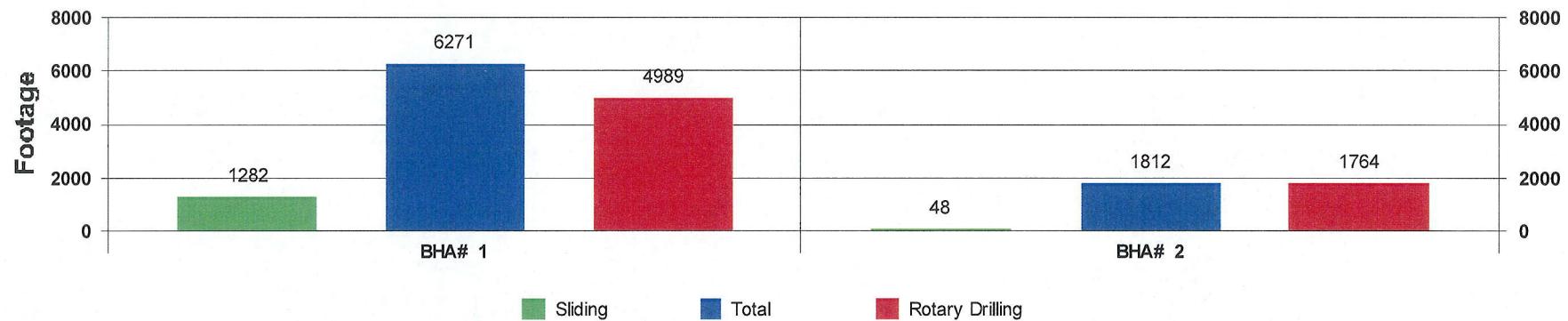
Note: Surveys listed are interpolated from the actual surveys

#	Date	Drill Mode	Start Time	End Time	Hours	Start MD	End MD	Depth Drilled	WOB	ROP	RPM	Surf. Torque	Flow Rate	SPP	TFO	INC	AZM	DLS	Note
DEPTH% - TIME %																			
			Total Drilled:	1812	Avg. Total ROP:	22.37													
			Total Rotary Drilled:	1764	Avg. Rotary ROP:	22.76													Percent Rotary: 97.35 - 95.68
			Total Drilled Sliding:	48	Avg. Slide ROP:	13.71													Percent Slide: 2.65 - 4.32

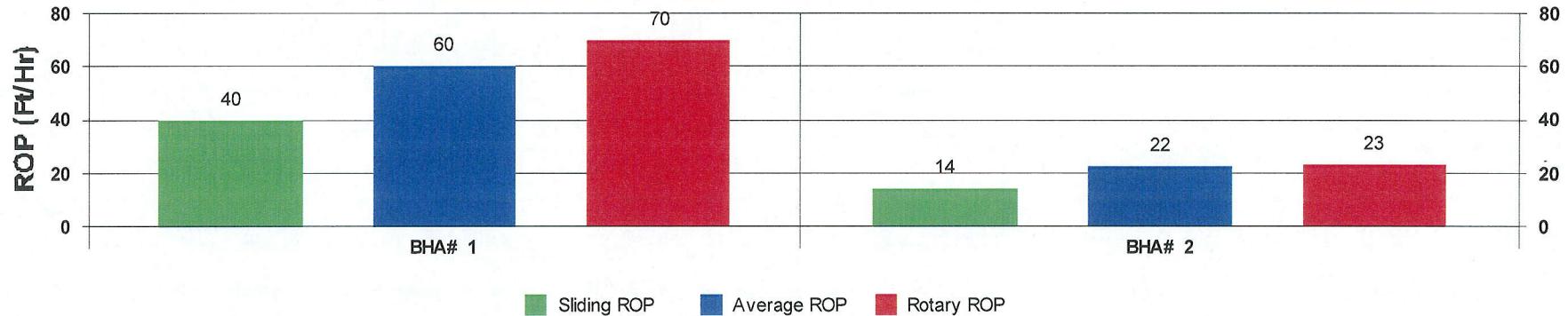


JOB NO.:	42DEF0903135	FIELD:	Natural Buttes Unit
COMPANY:	Kerr McGee Oil and Gas Onshore LP	TOWNSHIP:	Sec 27 T9S R21E
LOCATION:	NBU 921-27C Pad	SECT/RANGE:	Rocky Mountain
RIG NAME:	Ensign 139	COMMENT	
STATE:	Utah		
COUNTY:	Uintah		
WELL NAME:	NBU 921-27D2AS		

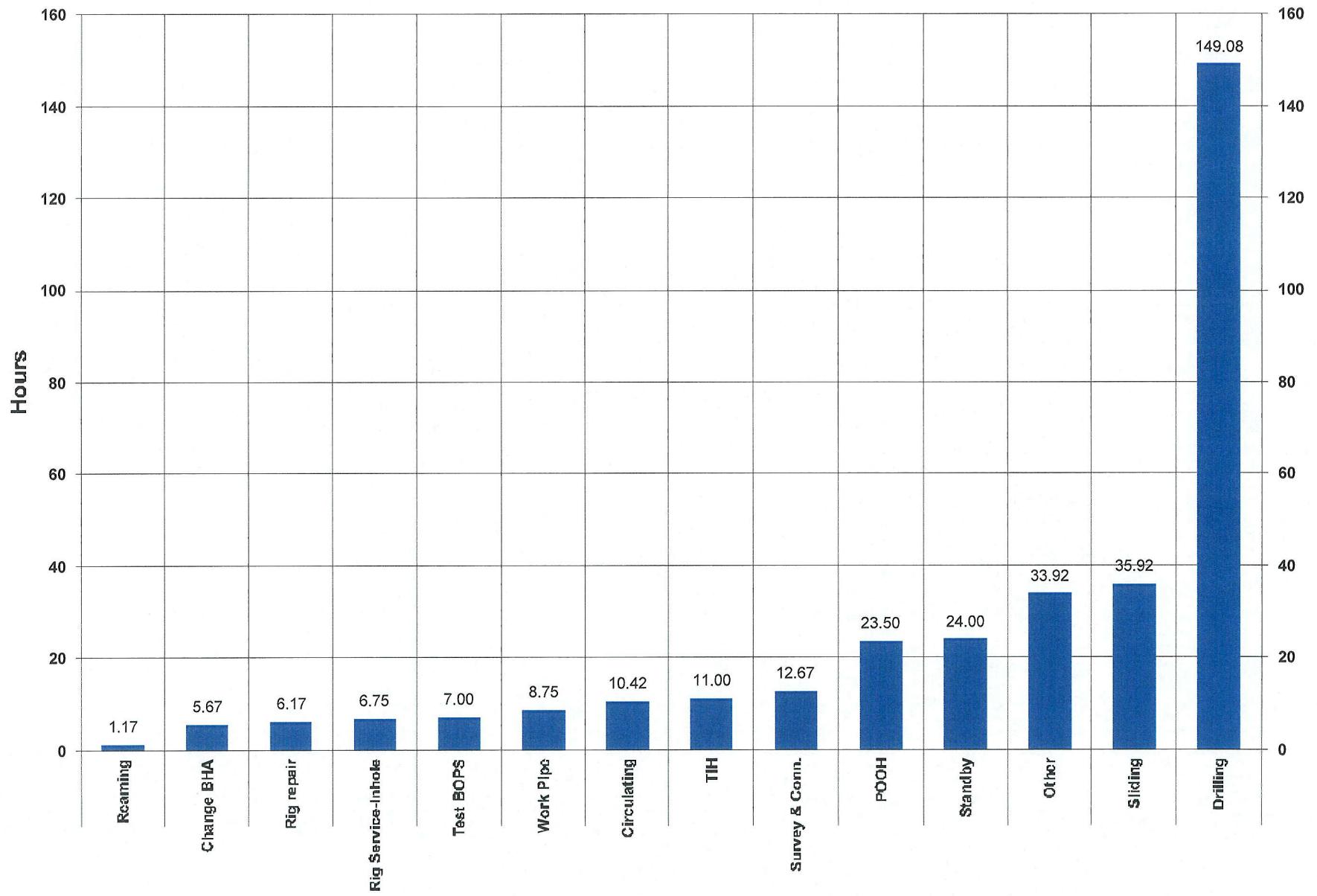
Footage Drilled with BHA



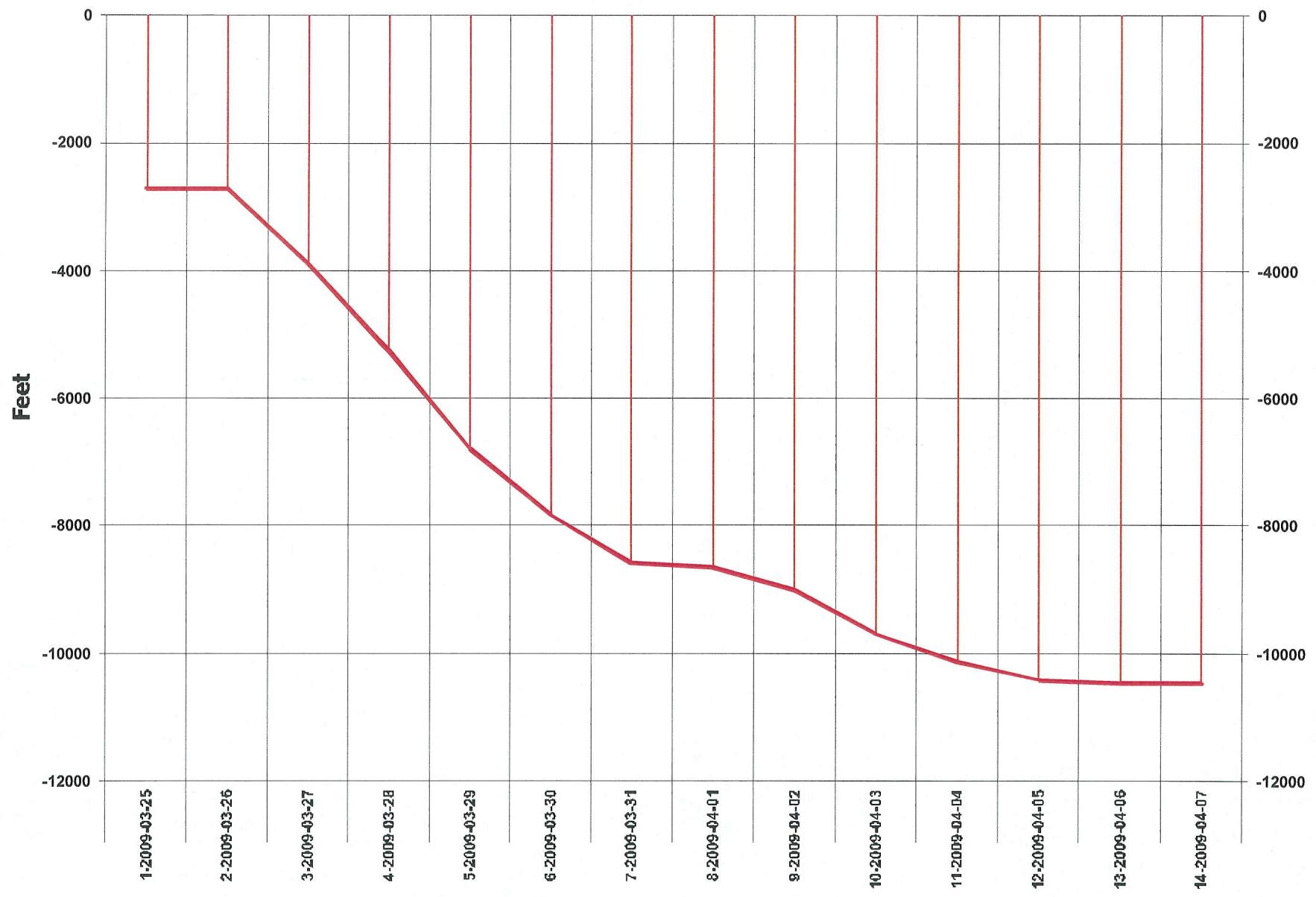
ROP vs BHA



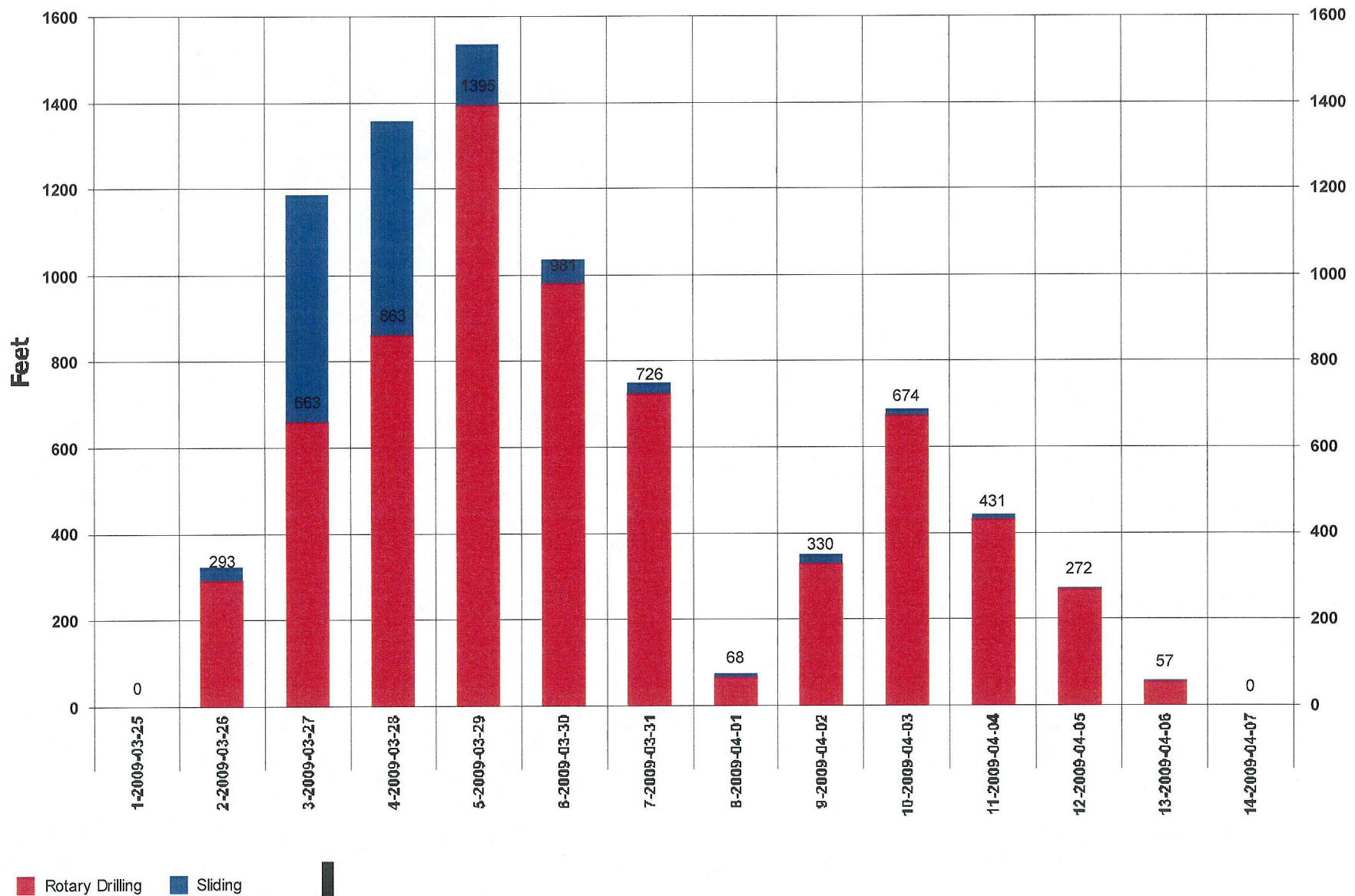
Activity Histogram



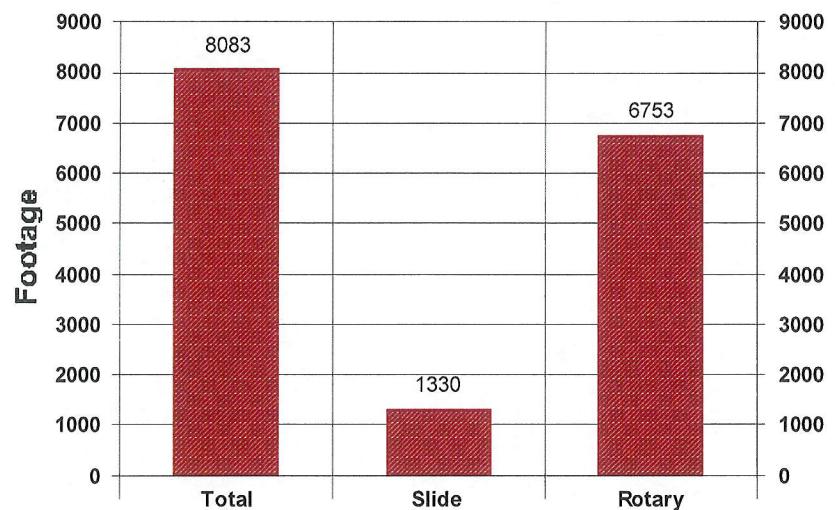
Measured Depth vs Days



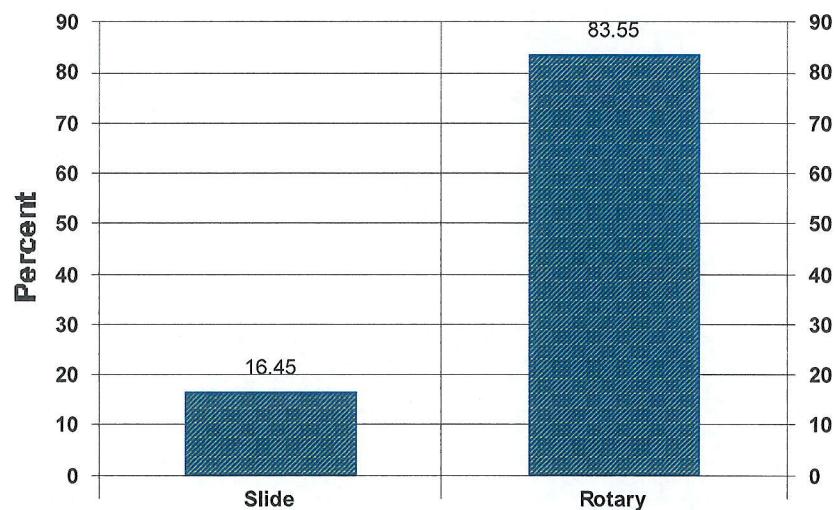
Daily Footage



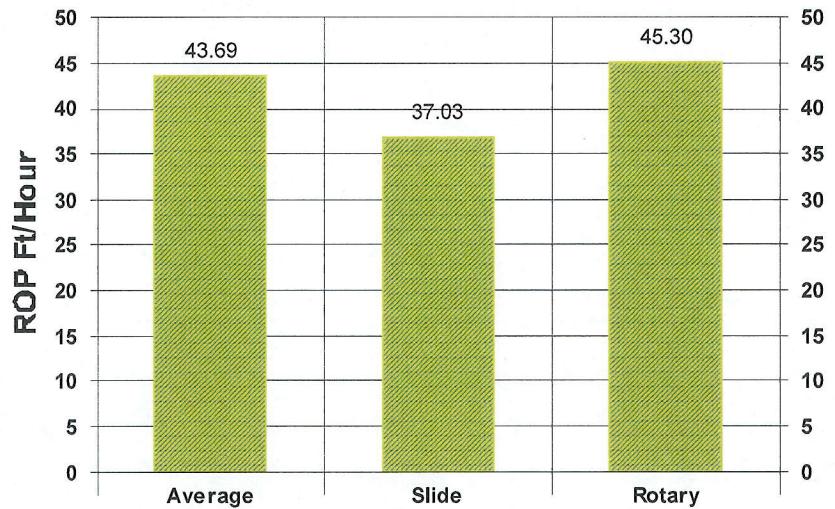
Footage Drilled Totals



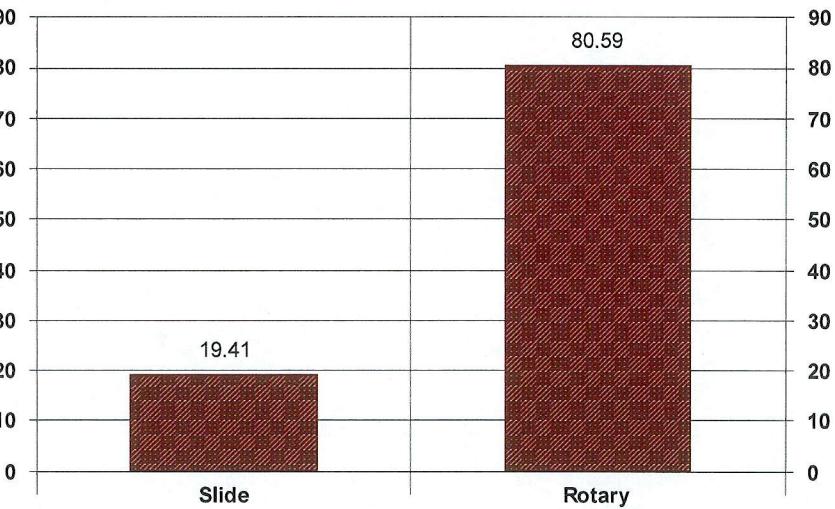
Footage Percent



Rate of Penetration Totals



Time Percent





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